



PATHWAYS

Listening Speaking,
and Critical Thinking

4



Paul MacIntyre

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B

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Pathways 4 - Split B
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Scope and Sequence

Unit	Academic Pathways	Vocabulary	Listening Skills
4 Energy Issues <i>Page 61</i> Academic Track: Interdisciplinary	Lesson A: Listening to a Guest Speaker Role-Playing a Town Meeting Lesson B: Listening to a Study Group Discussion Creating and Using Visuals in a Presentation	Understanding Meaning from Context Using a Dictionary Using New Vocabulary to Complete an Interview Using New Vocabulary to Discuss Themes of the Unit	Predicting Content Listening for Main Ideas Outlining Listening for Key Concepts Listening for Details Pronunciation: Stressing Two-Word Compounds
5 Migration <i>Page 81</i> Academic Track: Life Science, Biology	Lesson A: Listening to a Radio Show Talking about your Family History Lesson B: Listening to a Conversation Between Friends Doing a Research Presentation	Understanding Meaning from Context Using a Dictionary Choosing the Right Definition Using New Vocabulary to Complete an Article Using New Vocabulary to Discuss Personal Opinions	Predicting Content Listening for Key Concepts Note-Taking Predicting Content Listening for Main Ideas Pronunciation: Using Question Intonation
6 Tradition and Progress <i>Page 101</i> Academic Track: Interdisciplinary	Lesson A: Listening to a Student Presentation Interviewing a Classmate Lesson B: Listening to a Study Group Discussion Evaluating Web Sources	Understanding Meaning from Context Using a Dictionary Choosing the Right Definition Using New Vocabulary to Complete an Article Using New Vocabulary to Discuss Personal Experiences	Listening for Main Ideas Completing an Idea Map While Listening Note-Taking Pronunciation: Linking Consonants to Vowels

Grammar	Speaking Skills	Viewing	Critical Thinking Skills
<p>The Future Perfect</p> <p>The Future Perfect Progressive</p>	<p>Emphasizing Important Information</p> <p>Expressing Approval and Disapproval</p> <p>Student to Student: Conceding a Point</p> <p>Presentation Skills: Fighting Nervousness</p>	<p>Video: <i>Solar Power</i></p> <p>Viewing for Specific Information</p> <p>Viewing for Main Ideas</p>	<p>Discussing Unit Content Using New Vocabulary</p> <p>Using a Graphic Organizer to Take Notes</p> <p>Understanding Visuals</p> <p>Evaluating Pros and Cons of Energy Sources</p> <p>Analyzing and Ranking Statements and Providing Reasons</p> <p>Critical Thinking Focus: Using an Outline to Take Notes</p>
<p>Using Past Modals to Make Guesses about the Past</p> <p>Using Past Modals to Make Inferences</p>	<p>Expressing Surprise</p> <p>Expressing Hopes</p> <p>Student to Student: Expressing Interest</p> <p>Presentation Skills: Preparing for Audience Questions</p>	<p>Video: <i>Wildebeest Migration</i></p> <p>Understanding and Interpreting Visuals</p> <p>Sequencing Events</p> <p>Note-Taking</p>	<p>Making Inferences about Unit Content</p> <p>Presenting Theories and Evidence about Early Humans</p> <p>Using a Graphic Organizer</p> <p>Understanding Visuals</p> <p>Restating Information from a Listening</p> <p>Critical Thinking Focus: Understanding Scientific Theories</p>
<p>Verb + Gerund</p> <p>Verb + Object + Infinitive</p>	<p>Using Fillers</p> <p>Expressing a Lack of Knowledge</p> <p>Student to Student: Congratulating the Group</p> <p>Presentation Skills: Varying Your Voice Volume</p>	<p>Video: <i>Farm Restoration</i></p> <p>Viewing for Main Ideas</p> <p>Viewing for Specific Information</p> <p>Note-Taking</p>	<p>Understanding and Using Buzzwords in a Conversation</p> <p>Interviewing Classmates and Analyzing Feedback</p> <p>Relating Unit Content to Personal Opinions</p> <p>Comparing and Contrasting Cultures Using Unit Content</p> <p>Analyzing and Discussing Web Sites</p> <p>Critical Thinking Focus: Evaluating Numbers and Statistics</p>

Each unit consists of two lessons which include the following sections:

Building Vocabulary
Using Vocabulary
Developing Listening Skills
Exploring Spoken English
Speaking (called “Engage” in Lesson B)

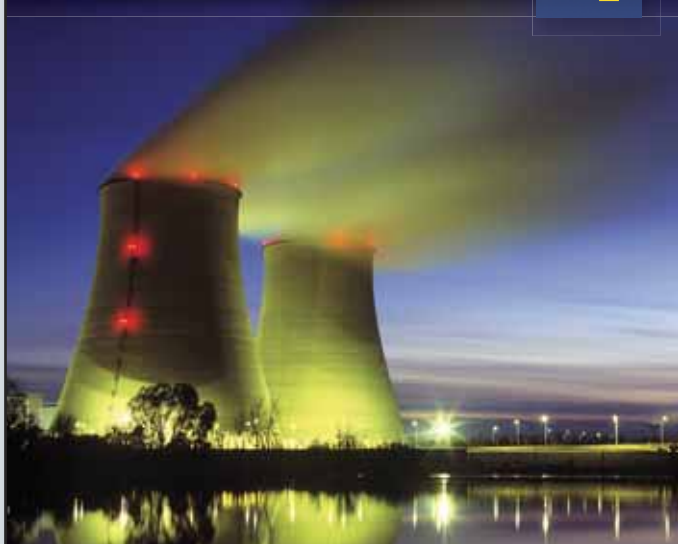
- An **academic pathway** is clearly labeled for learners, starting with formal listening (e.g., lectures) and moving to a more informal context (e.g., a conversation between students in a study group).
- The **“Exploring the Theme”** section provides a visual introduction to the unit and encourages learners to think critically and share ideas about the unit topic.

Energy Issues

ACADEMIC PATHWAYS
Lesson A: Listening to a Guest Speaker
Role-Playing a Town Meeting
Lesson B: Listening to a Study Group Discussion
Creating and Using Visuals in a Presentation

UNIT

4



Think and Discuss

1. Look at the photo and read the caption. What types of energy are you familiar with?
2. How much energy do you use in your daily life?

Vapor is released from a nuclear power plant in France.

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Exploring the Theme:
Energy Issues

A | Look at the photos and read the captions. Then answer the questions.

1. How do you think energy use has changed over time?
2. In the future, do you think you will be using more or less electricity than you do now? Why do you think so?
3. Would you be willing to live next to a large energy facility such as a nuclear power plant or wind farm? Explain your answer.



Wind power provides energy to farms and homes in Abilene, Texas.

Big Power, Big Risks




By the year 2030, the demand for energy is expected to be double what it was in the year 2000. Providing the enormous quantity of energy the world needs is a difficult task, and there is often risk for workers, the public, and the environment.

In this village, lights shine from nearly every house. However, the world is still far away from providing inexpensive electricity. In fact, about one in four people still have no electricity at all.

THE PATHWAY TO ACADEMIC SUCCESS...

Key academic and high-frequency vocabulary is introduced, practiced, and expanded throughout each unit. Lessons A and B each present and practice 10 terms.

A “Developing Listening Skills” section follows a before, during, and after listening approach to give learners the tools necessary to master listening skills for a variety of contexts.

Listening activities encourage learners to listen for and consolidate key information, reinforcing the language, and allowing learners to think critically about the information they hear.

LESSON A BUILDING VOCABULARY

A | Meaning from Context. Read and listen to the news report about the Deepwater Horizon oil spill. Notice the words in blue. These are words you will hear and use in Lesson A.

On April 20, 2010, one of the worst oil spills in history began in the Gulf of Mexico. The spill occurred at an oil rig, called the Deepwater Horizon, which is owned by the BP company. A buildup of pressure caused natural gas to shoot up suddenly from the ocean floor. The gas **triggered** a terrible explosion and a fire on the oil rig. After the explosion, the crew **abandoned** the platform and escaped in lifeboats. Unfortunately, eleven workers were never found.



For weeks, no one was sure just how much oil was being **released** into the Gulf of Mexico. Gradually, information about the damage from the oil spill **emerged**. It was discovered that between 50,000 to 60,000 barrels of oil a day were flowing into the Gulf. **Experts** from BP and other organizations tried to stop the spill, but it continued for nearly three months. By the time the leak was stopped, the beautiful blue waters of the Gulf had been **contaminated** with nearly 5 million barrels of oil.



The disaster did serious harm to the fishing and tourism industries in the southern United States. Pictures of birds that had been **exposed** to the thick oil appeared daily in the news. The American public **reacted** angrily, and the spill created a huge **controversy**. Some people even wanted to stop oil companies from drilling in the Gulf of Mexico. BP set aside 20 billion dollars to **compensate** fishermen, hotel owners, and store owners whose businesses were impacted by the spill.

B | Match each word in blue from exercise A with its definition. Use your dictionary to help you.

- | | | |
|---------------------|-------|--|
| 1. triggered (v) | _____ | a. to pay someone to replace lost money or things |
| 2. abandoned (v) | _____ | b. became known; appeared |
| 3. released (v) | _____ | c. responded to |
| 4. emerged (v) | _____ | d. caused an event to begin to happen |
| 5. experts (n) | _____ | e. left a place, thing, or person permanently |
| 6. contaminated (v) | _____ | f. people who are very skilled or who know a lot about a particular subject |
| 7. exposed (v) | _____ | g. entered the surrounding atmosphere or area; freed |
| 8. reacted (v) | _____ | h. a disagreement, especially about a public policy or moral issue that people feel strongly about |
| 9. controversy (n) | _____ | i. made something dirty, harmful, or dangerous because of chemicals or radiation |
| 10. compensate (v) | _____ | j. placed in a dangerous situation |

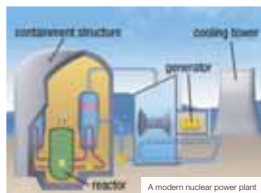
64 | UNIT 4

LESSON A DEVELOPING LISTENING SKILLS

Before Listening

Predicting Content. Work with a partner. Look at the map and diagram. Discuss the questions.

- Use your dictionary and look up these terms: *containment, radiation, radioactive, half-life*. How do you predict these words will be used in the lecture?
- Locate the containment structure in the diagram. Why do you think this structure is important? Explain your ideas.

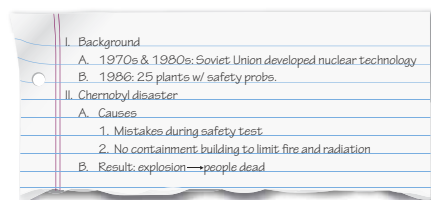


Listening: A Guest Speaker

Critical Thinking Focus: Using an Outline to Take Notes

Using an outline can help you take organized and clear notes. In an outline, indicate main ideas with Roman numerals (I, II, III) and capital letters (A, B, C). Indicate details with numbers. As information becomes more specific, move it to the right.

A | Listen to the introduction to a lecture about the Chernobyl nuclear disaster. Read the outline as you listen.



B | Discussion. With a partner, discuss the questions. Refer to the outline in exercise A.

- What topics did the introduction cover?
- Which items are main ideas? Which items are details?

C | Listening for Main Ideas. Listen to the entire lecture and answer the questions.

- Check (✓) each effect of the explosion that the speaker mentions.
 - _____ a. People were forced to leave their homes.
 - _____ b. Animals died from exposure to radiation.
 - _____ c. Young people became ill with thyroid cancer.
 - _____ d. Billions of dollars were spent on health and cleanup costs.
 - _____ e. Modern nuclear power plants are built with containment structures.
- What happened to the town of Pripjat?
 - _____ a. It was abandoned.
 - _____ b. It burned to the ground.
 - _____ c. It was turned into a tourist attraction.
- What is surprising about Chernobyl today?
 - _____ a. The residents of Pripjat have returned.
 - _____ b. Many animals have come back to the area.
 - _____ c. The radiation from the explosion has disappeared.

D | Outlining. Listen again. Continue the outline from exercise A on page 66. Complete the outline with details from the lecture. (See page 206 of the *Independent Student Handbook* for more information on outlining.)

C. The Chernobyl plant today

- Still extremely _____
- There are plans to build a _____

D. Radioactivity

- Many areas still contaminated with cesium _____
- Half-life of _____ years

E. The exclusion zone today

- _____ people live there
- Animals have returned, for ex., _____

After Listening

Discussion. With a partner, answer the questions. Use your notes as well as your own ideas.

- Describe the town of Pripjat before and after the disaster.
- These days, a small number of tourists travel to Chernobyl. Would you go there if you had the opportunity?

THE PATHWAY TO ACADEMIC SUCCESS...

LESSON A

EXPLORING SPOKEN ENGLISH

Language Function

Emphasizing Important Information

Here are some expressions used to emphasize important information.

Don't forget that . . .

Let me stress that . . .

I want to emphasize that . . .

I would like to stress that . . .

I would like to point out that . . .

You need to remember that . . .

It is important to note/remember that . . .



A | In the lecture about Chernobyl, the speaker used a number of useful expressions to emphasize her point. Listen to the excerpts and fill in the missing expressions.

- _____ Chernobyl had no containment structure. This building would have limited the fire and contained the radioactivity.
- Thyroid cancer can be cured, but _____ survivors must spend a lifetime taking medication.
- _____, however, that it will be decades before large numbers of people are allowed to come back and live in the exclusion zone.

Wild horses, called Przewalski horses, walk through the Chernobyl exclusion zone. These horses are extinct in the wild and can only be found in a few nature reserves and in the Chernobyl exclusion zone.



B | Form a group with two other students. Choose one of the types of energy below and read the facts. Then tell the members of your group what you know about your energy source. Add your own ideas. Emphasize the fact that you think is the most interesting.

Oil prices are rising. For example, it cost me almost \$60 to put gas in my car yesterday. Last year, it would have cost me only \$40. Still, it is important to remember that . . .



Oil

- The price of oil is rising.
- Oil spills pollute the environment.
- The top three oil-producing countries in the world are Saudi Arabia, Russia, and the United States.



Coal

- Coal deposits in the United States contain more energy than all the world's oil reserves combined.
- Coal is a relatively inexpensive energy source.
- Coal mining is dangerous. Between 1969 and 2000, more than 20,000 coal miners were killed.



Wind

- Wind power is clean, but is sometimes very noisy.
- The world will never run out of wind.
- Denmark gets 20 percent of its electricity from wind power.

The **“Exploring Spoken English”** section allows students to examine and practice specific grammar points and language functions from the unit while enabling them to sharpen their listening and speaking skills.

Lesson A closes with a **full page of “Speaking” activities** including pair and group work activities, increasing learner confidence when communicating in English.

A **variety of activity types** simulate the academic classroom, where multiple skills must be applied simultaneously for success.

SPEAKING

Role-Playing a Town Meeting



A | Form a group with three other students. You will role-play a city council meeting about building a nuclear power plant. Read the situation and the role cards. Assign two students to each role.

Situation: The city council has approved a plan to build a nuclear power plant in your city. A small group of residents are against the plan. They are going to meet with city council members to discuss their concerns.

Role #1: Residents against the Nuclear Power Plant

1. Nuclear power plants aren't safe. We don't want a nuclear accident to happen here.
2. Nuclear power plants produce waste that is dangerous for many years.
3. People who live near a nuclear power plant might get cancer.

Role #2: City Council Members

1. Nuclear safety technology has greatly advanced in recent years.
2. France, Belgium, and Slovakia rely on nuclear power for more than 50 percent of their electricity. There have been no big nuclear accidents in those countries.
3. Nuclear power could help us stop using oil.



B | Work with the group member who shares your role. Think of more arguments to support your point. In addition, try to think of responses to the other side's arguments.

I think they will say that . . .

If they say that, we should emphasize that . . .



C | **Role-Playing.** Role-play the discussion in your group. Use expressions of emphasis when appropriate.

Thank you for meeting with us. We have a few concerns about this nuclear power plant.

I understand. First of all, let me stress that we will do everything possible to make this power plant safe.

Student to Student: Conceding a Point


In a debate or discussion, people often argue from different points of view. If an argument is very convincing to you, you can let the other person know that you agree with their point or that you accept that their point is true. Here are some expressions to concede a point.

Good point.
Fair enough.
I'll give you that.

THE PATHWAY TO ACADEMIC SUCCESS...

- The “**Viewing**” section works as a content-bridge between Lesson A and Lesson B and includes two pages of activities based on a fascinating video from National Geographic.

LESSON A AND B
VIEWING

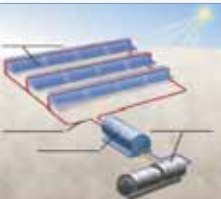


Solar cells turn sunlight into electricity.

SOLAR POWER

Before Viewing

Understanding Visuals. Read the information. Use the words in blue to label the diagram.



There are many different kinds of solar power systems. This diagram shows how parabolic trough solar power works.

1. Sunlight hits **curved mirrors** that direct all the light and heat to the middle of the mirror.
2. In the middle of the mirror, a tube filled with **synthetic** oil is heated to about 700°F.
3. The oil runs into a **boiler** where it turns water into steam.
4. The steam spins an **electric turbine**, which turns and makes electricity.

Synthetic products are made from chemicals or artificial substances rather than from natural sources.

While Viewing

A | Watch the video. Fill in the blanks with the word or words you hear.

The most powerful source of (1) _____ on the planet is actually out in space. It's (2) _____. More energy falls as sunlight on the United States in a single day than it uses in a (3) _____. But it's been difficult to turn that sunlight into (4) _____. Many people already use some (5) _____. But the world's need for power is great, and for solar power to be an alternative to other energy sources, it has to be both affordable and (6) _____.

B | Watch the video again. Check (✓) the five true statements.

1. _____ Sacramento doesn't use much solar power.
2. _____ Many new homes have solar cells.
3. _____ Many people drive solar-powered cars.
4. _____ Solar panels shade parking lots.
5. _____ Solar panels shade city buildings.
6. _____ Sacramento gets lower prices by buying a lot of solar panels at one time.
7. _____ Solar power is very expensive to residents of Sacramento.
8. _____ People can sell electricity back to the power company.


C | **Viewing for Specific Information.** Watch the video again. Circle the best answer to each question.

1. Where is the Kramer Solar Junction facility located?
 - a. In the mountains
 - b. In a desert
 - c. By the sea
2. How many people can the facility provide power for?
 - a. Half a million
 - b. Five million
 - c. Eight and a half million
3. What happens on days when there is no sun?
 - a. The facility buys back power from customers.
 - b. The facility uses power from batteries.
 - c. The facility uses backup natural gas generators.
4. What does the facility produce a lot of?
 - a. Power
 - b. Carbon dioxide
 - c. Smog

After Viewing

Critical Thinking. With a partner, discuss the questions.

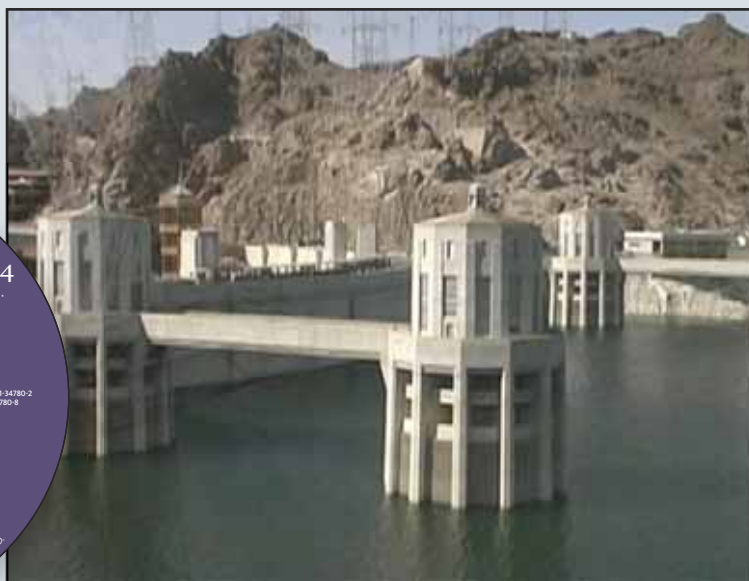
1. What are some problems that could occur when using solar power?
2. In general, do you think the government should be responsible for developing alternative energies? Or, should it be left to private corporations to develop alternative energies? Explain your answer.
3. Mirrors now cover 1000 acres of the Mojave Desert at the Kramer Solar Junction power facility. What impact could this have on the local environment there?



Ladybug robots crawl down a field. The robots are powered by solar power collectors attached to their backs.

72 | UNIT 4
ENERGY ISSUES | 73

- A DVD for each level contains 10 authentic videos from National Geographic specially adapted for English language learners.



THE PATHWAY TO ACADEMIC SUCCESS...

● **Critical thinking activities** are integrated in every unit, encouraging continuous engagement in developing academic skills.

● An **“Engage” section** at the end of the unit challenges learners with an end-of-unit presentation project. Speaking tips are offered for formal and informal group communication, instructing students to interact appropriately in different academic situations.

UNIT 4

ENGAGE: Creating and Using Visuals in a Presentation

4


Your group is going to deliver a presentation to the class about an unusual source of energy. To support your presentation, your group will make a poster or a slide presentation with pictures, graphs, or other visual information. Your visual should include answers to these questions:

1. What is an unusual source of energy?
2. How does this energy source work?
3. What are the advantages and disadvantages of using this energy source?

A | Discussion. Form a group of two or three students. Examine the list of unusual energy sources and select one to research.

biodiesel
biomass
energy-generating floors
ethanol

hydrogen fuel cells
methane from landfills
sugar
tidal or ocean power



This biomass plant burns rice to generate electricity.

B | Researching. Outside of class, research your topic online or in the library. Use the outline below as a guide while you take notes about your topic. Find several images that relate to your energy source. (See page 212 of the *Independent Student Handbook* for more information on doing research.)

I. Type of energy
A. Description
B. Source
II. Examples of how the energy is used
A. Places
B. Purposes
III. Advantages
IV. Disadvantages
V. Future of this form of energy

C | Planning a Presentation. As a group, use your notes from exercise B and your images to create a poster or slide presentation about your energy source. Be sure that your poster or slide presentation answers the three questions in the box at the top of the page.

D | Presentation. When you give your presentation, all group members should speak. Be sure to explain the images you present, and answer any questions from your audience.

Presentation Skills: Fighting Nervousness

It is normal to be a little nervous at the beginning of a presentation. However, the first impression you make on your audience is very important. Make an effort to speak slowly and calmly at the beginning of your presentation. Memorizing the first few sentences you plan to say can sometimes help. Soon you will begin to feel more comfortable and gain confidence.

LESSON B EXPLORING SPOKEN ENGLISH

Language Function

Expressing Approval and Disapproval

Here are some expressions you can use to express approval or disapproval.

Approval	Disapproval
<i>It's OK that . . .</i>	<i>It's wrong to (verb) . . .</i>
<i>I think it's fine to (verb) . . .</i>	<i>It's not right that . . .</i>
<i>I (strongly) approve of (noun) . . .</i>	<i>I (strongly) disapprove of (noun) . . .</i>
<i>It's OK (for someone) to (verb) . . .</i>	<i>It's not right (for someone) to (verb) . . .</i>

A | In the study group discussion, there were a number of expressions for expressing approval and disapproval. Listen and fill in the missing expressions you hear.

1. On the downside, some people _____ wind turbines because they're ugly. They also complain about the noise the machines make, although most people think _____ put up wind turbines on farmlands.
2. A lot of people think _____ to destroy animal habitats this way. They also believe _____ that people are forced to leave their homes.

B | Read the statements. Use the ratings below to indicate your approval or disapproval of each topic.

1 = strongly approve 2 = approve 3 = neither approve nor disapprove 4 = disapprove 5 = strongly disapprove

Statements	My Rating
a. The city council has voted to raise taxes by one percent in order to put solar energy systems in all government buildings. Do you approve or disapprove of raising taxes?	
b. A dam will provide cheap hydroelectric power to millions of people. However, it will require hundreds of people to leave the valley where they have been living for many years. Do you approve or disapprove of building the dam?	
c. A proposed geothermal plant near your town will reduce your energy bills. However, the steam that is released contains a gas that smells like rotten eggs. Do you approve or disapprove of building the geothermal plant?	
d. Your neighbor wants to install a wind turbine in his backyard. Do you approve or disapprove?	

C | Discussion. Form a group with three other students and compare your ratings from exercise B. One student should read each statement. Then group members should take turns giving and explaining their ratings. Discuss whether you agree or disagree with your classmates' ratings.

78 | UNIT 4

RESOURCES

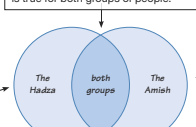
Understanding and Using Visuals: Graphic Organizers

T-Chart
Purpose: Compare or contrast two things or list aspects of two things

GM Food: <i>Pro</i> pest-resistant crops	GM Food: <i>Con</i> could be dangerous
---	---

Venn Diagram
Purpose: Show differences and similarities between two things, sometimes three

This area represents information that is true for the Hadza.



This area represents information that is true for both groups of people.

This area represents information that is true for the Amish.

Family Tree
Purpose: Organize information about your family relationships

Father
Place of origin:
Other places lived:

Mother
Place of origin:
Other places lived:

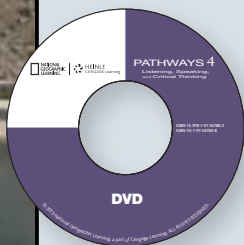
Me
Place of origin:
Other places lived:

● **“Presentation Skills” boxes** offer helpful tips and suggestions for successful academic presentations.

● A 19-page **“Independent Student Handbook”** is conveniently located in the back of the book and provides helpful self-study strategies for students to become better independent learners.

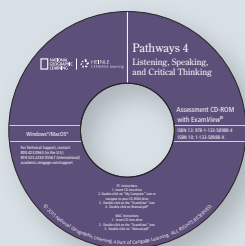
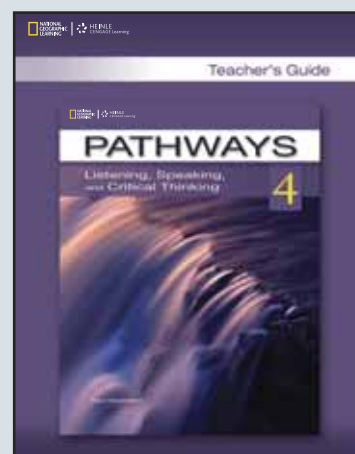
STUDENT AND INSTRUCTOR RESOURCES (for each level)

For the Teacher:



Perfect for integrating language practice with exciting visuals, **video clips from National Geographic** bring the sights and sounds of our world into the classroom.

A **Teacher's Guide** is available in an easy-to-use format and includes teacher's notes, expansion activities, and answer keys for activities in the student book.

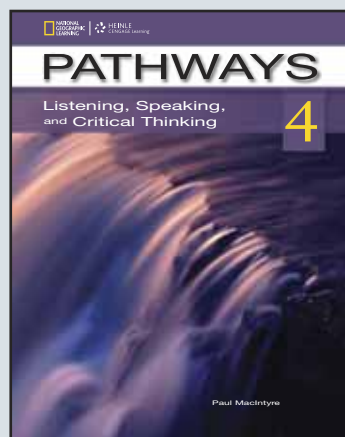


The Assessment CD-ROM with ExamView® is a test-generating software program with a data bank of ready-made questions designed to allow teachers to assess students quickly and effectively.

Bringing a new dimension to the language learning classroom, the **Classroom Presentation Tool CD-ROM** makes instruction clearer and learning easier through interactive activities, audio and video clips, and Presentation Worksheets.



For the Student:



The **Student Book** helps students achieve academic success in and outside of the classroom.



Audio CDs contain the audio recordings for the exercises in the student books.

Powered by MyELT, the **Online Workbook** has both teacher-led and self-study options. It contains 10 National Geographic video clips, supported by interactive, automatically graded activities that practice the skills learned in the student books.



LISTENING AND TEXT

64: Adapted from “Is Another Deepwater Disaster Inevitable?,” by Joel K. Bourne, Jr.: National Geographic Magazine, October 2010, **66-67:** Adapted from “The Long Shadow of Chernobyl,” by Richard Stone: National Geographic Magazine, April 2006, **84-87:** Adapted from “Human Journey” by James Shreeve: National Geographic Magazine, March 2006, **84-87:** Adapted from “From Africa to Astoria by Way of Everywhere,” by James Shreeve: National Geographic Web site, August 17, 2009, **96-97:** Adapted from “Heartbreak on the Serengeti” by Robert M. Poole: National Geographic Magazine, February 2006, **104:** Adapted from “The Hadza,” by Michael Finkel: National Geographic Magazine, December 2009, **106-107, 111:** Adapted from “Bhutan’s Enlightened Experiment” by Brook Larmer: National Geographic Magazine, March 2008, **110:** Adapted from “Spread of the Amish”

by National Geographic Staff: National Geographic Blog Central, July 8, 2009, **114:** Adapted from “Disappearing Languages: Enduring Voices Project,” National Geographic Web site, January 2011, **115-117:** Adapted from “Native Lands,” by Charles Bowden: National Geographic Magazine, August 2010, **118:** Adapted from “‘Spectacular’ Three-Cat Monolith Unearthed in Mexico,” by Ker Than: National Geographic Daily News, August 1, 2011, **118:** Adapted from “Machu Picchu’s Mysteries Continue to Lure Explorers,” by Kelly Hearn and Jason Golomb: National Geographic Web site

PHOTOS

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MAP AND ILLUSTRATION

64: National Geographic Maps; **66:** National Geographic Maps; **82-83:** NGM Maps/National Geographic Image Collection; **85:** Gregory Manchess/National Geographic Image Collection; **92:** National Geographic Maps; **92:** Map courtesy of Roy Safaris–Tanzania; **102-103:** National Geographic Maps; **104:** National Geographic Maps; **106:** National Geographic Maps; **106:** Atlaspix/Shutterstock.com; **112:** National Geographic Maps; **116:** National Geographic Maps

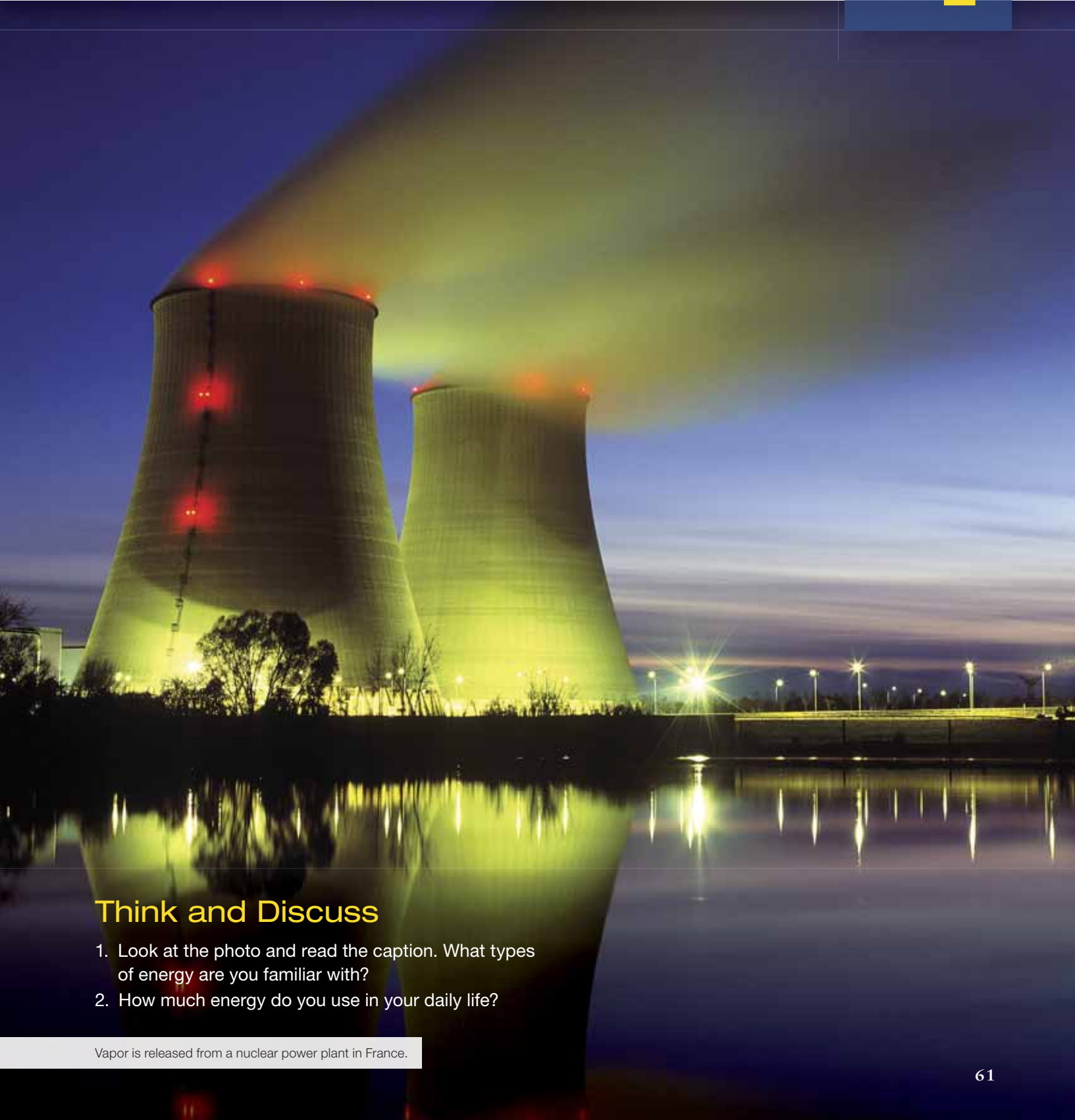
Energy Issues

ACADEMIC PATHWAYS

Lesson A: Listening to a Guest Speaker
Role-Playing a Town Meeting

Lesson B: Listening to a Study Group Discussion
Creating and Using Visuals in a Presentation

4



Think and Discuss

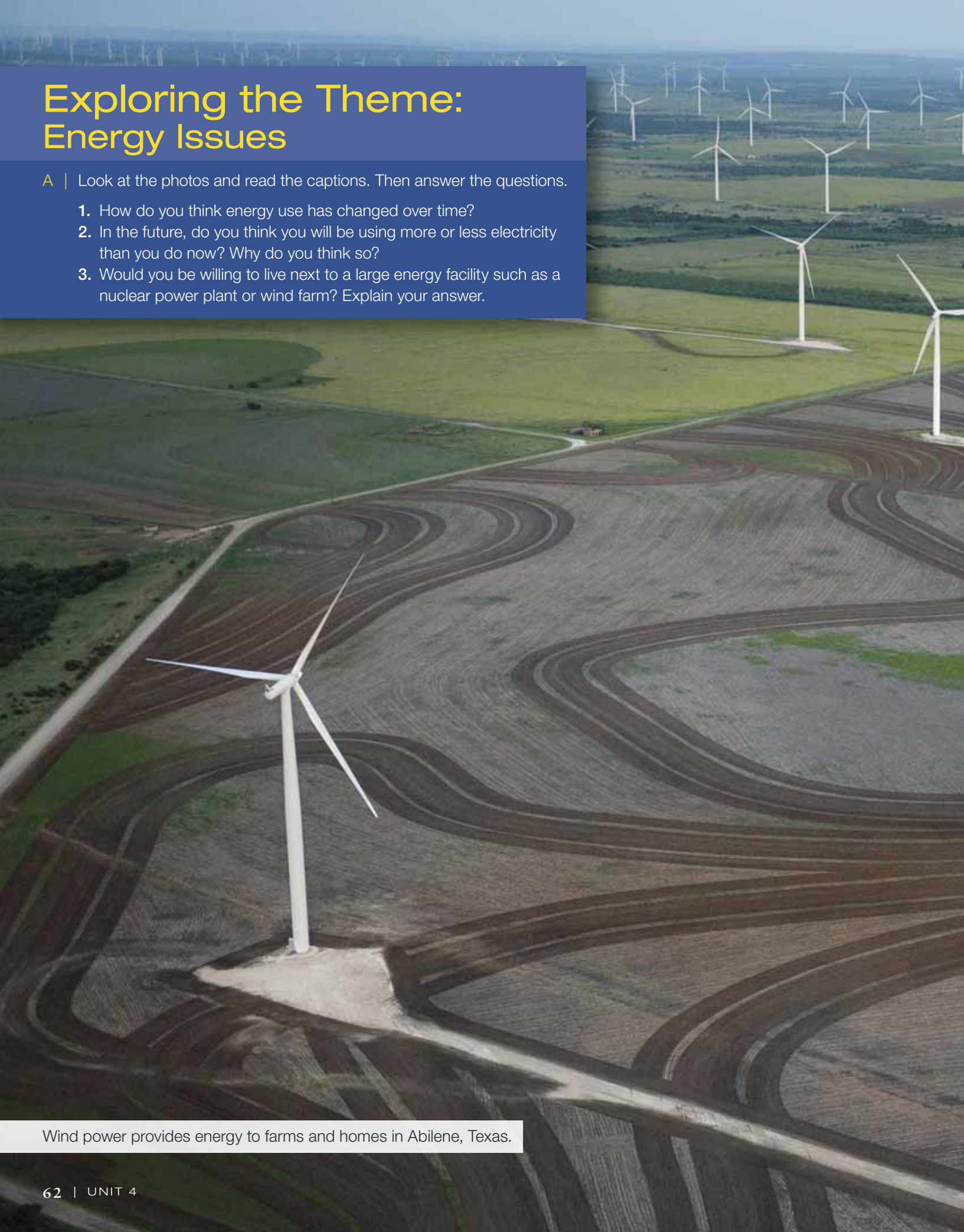
1. Look at the photo and read the caption. What types of energy are you familiar with?
2. How much energy do you use in your daily life?

Vapor is released from a nuclear power plant in France.

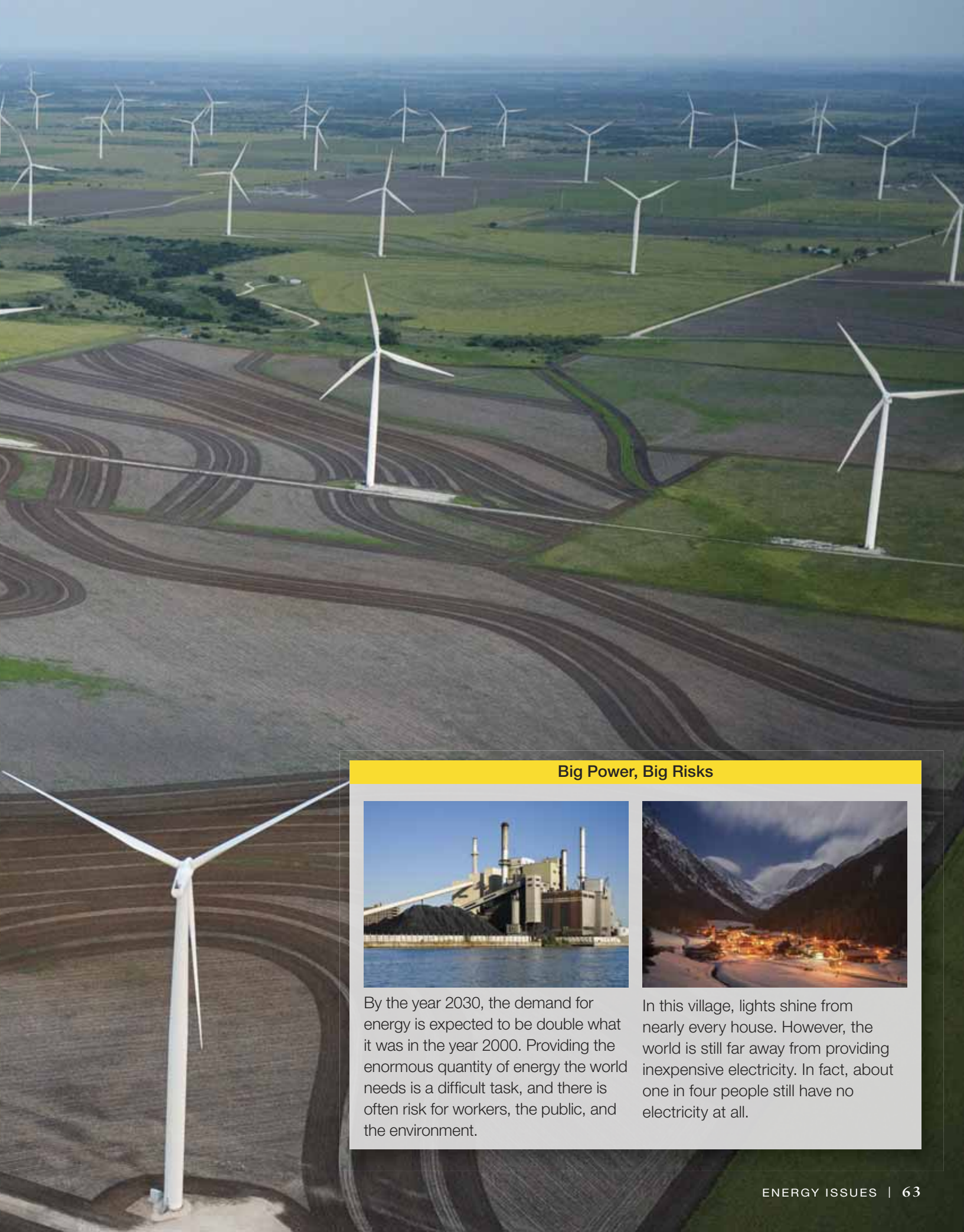
Exploring the Theme: Energy Issues

A | Look at the photos and read the captions. Then answer the questions.

1. How do you think energy use has changed over time?
2. In the future, do you think you will be using more or less electricity than you do now? Why do you think so?
3. Would you be willing to live next to a large energy facility such as a nuclear power plant or wind farm? Explain your answer.



Wind power provides energy to farms and homes in Abilene, Texas.



Big Power, Big Risks



By the year 2030, the demand for energy is expected to be double what it was in the year 2000. Providing the enormous quantity of energy the world needs is a difficult task, and there is often risk for workers, the public, and the environment.



In this village, lights shine from nearly every house. However, the world is still far away from providing inexpensive electricity. In fact, about one in four people still have no electricity at all.



A | Meaning from Context. Read and listen to the news report about the Deepwater Horizon oil spill. Notice the words in **blue**. These are words you will hear and use in Lesson A.

On April 20, 2010, one of the worst oil spills in history began in the Gulf of Mexico. The spill occurred at an oil rig, called the Deepwater Horizon, which is owned by the BP company. A buildup of pressure caused natural gas to shoot up suddenly from the ocean floor. The gas **triggered** a terrible explosion and a fire on the oil rig. After the explosion, the crew **abandoned** the platform and escaped in lifeboats. Unfortunately, eleven workers were never found.



A beach in the United States is covered with oil after the Deepwater Horizon oil spill.

For weeks, no one was sure just how much oil was being **released** into the Gulf of Mexico. Gradually, information about the damage from the oil spill **emerged**. It was discovered that between 50,000 to 60,000 barrels of oil a day were flowing into the Gulf. **Experts** from BP and other organizations tried to stop the spill, but it continued for nearly three months. By the time the leak was stopped, the beautiful blue waters of the Gulf had been **contaminated** with nearly 5 million barrels of oil.



The disaster did serious harm to the fishing and tourism industries in the southern United States. Pictures of birds that had been **exposed** to the thick oil appeared daily in the news. The American public **reacted** angrily, and the spill created a huge **controversy**. Some people even wanted to stop oil companies from drilling in the Gulf of Mexico. BP set aside 20 billion dollars to **compensate** fishermen, hotel owners, and store owners whose businesses were impacted by the spill.

B | Match each word in **blue** from exercise **A** with its definition. Use your dictionary to help you.

- | | | |
|----------------------|-------|--|
| 1. triggered (v.) | _____ | a. to pay someone to replace lost money or things |
| 2. abandoned (v.) | _____ | b. became known; appeared |
| 3. released (v.) | _____ | c. responded to |
| 4. emerged (v.) | _____ | d. caused an event to begin to happen |
| 5. experts (n.) | _____ | e. left a place, thing, or person permanently |
| 6. contaminated (v.) | _____ | f. people who are very skilled or who know a lot about a particular subject |
| 7. exposed (v.) | _____ | g. entered the surrounding atmosphere or area; freed |
| 8. reacted (v.) | _____ | h. a disagreement, especially about a public policy or moral issue that people feel strongly about |
| 9. controversy (n.) | _____ | i. made something dirty, harmful, or dangerous because of chemicals or radiation |
| 10. compensate (v.) | _____ | j. placed in a dangerous situation |

USING VOCABULARY

- A** | Read the interview and fill in each blank with the correct form of the word from the box. Use each word only once.

abandon

controversy

expert

react

trigger

Q: Can mining for energy sources such as coal and oil cause natural disasters?


A: Some people think so. For example, in 1989, there was an earthquake in the city of Newcastle, Australia. Some (1) _____ said it was (2) _____ by coal mining in the area. Others thought there was no way that mining 2297 feet (700 meters) down could cause an earthquake 6 miles (10 kilometers) beneath the surface of the earth.


Q: How did the public (3) _____ to the experts' opinion?

A: Well, it created a great deal of (4) _____. A lot of people called for an end to coal mining in Newcastle. John Tate, the Lord Mayor of the city at the time, said there was no chance Newcastle would (5) _____ coal mining.



Newcastle, Australia

-  **B** | With a partner, practice the interview from exercise **A**. Then switch roles and practice again.

-  **C** | **Discussion.** Form a group with two or three other students and discuss the questions.

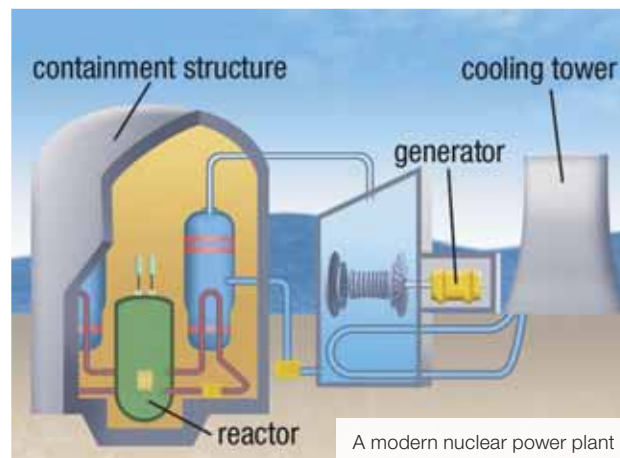
1. Eleven people died in the 1989 Newcastle earthquake. Should the coal-mining companies of Newcastle **compensate** the families of the workers who died? Explain your opinion.
2. What is your reaction when photos of an environmental disaster are **released**? Give an example.
3. The Deepwater Horizon oil spill **contaminated** the ocean and seashore. In your opinion, who is responsible for cleaning up the oil spill?
4. What could happen to animals, fish, and plants that are **exposed** to oil spills or dangerous gases from coal mines?
5. Following an environmental disaster, what do you think should happen if information **emerges** that shows the accident was caused by a company's or a government's negligence?¹

¹If someone is guilty of **negligence**, they have failed to do something that they ought to do.

Before Listening

 **Predicting Content.** Work with a partner. Look at the map and diagram. Discuss the questions.

1. Use your dictionary and look up these terms: *containment*, *radiation*, *radioactive*, *half-life*. How do you predict these words will be used in the lecture?
2. Locate the containment structure in the diagram. Why do you think this structure is important? Explain your ideas.



Listening: A Guest Speaker

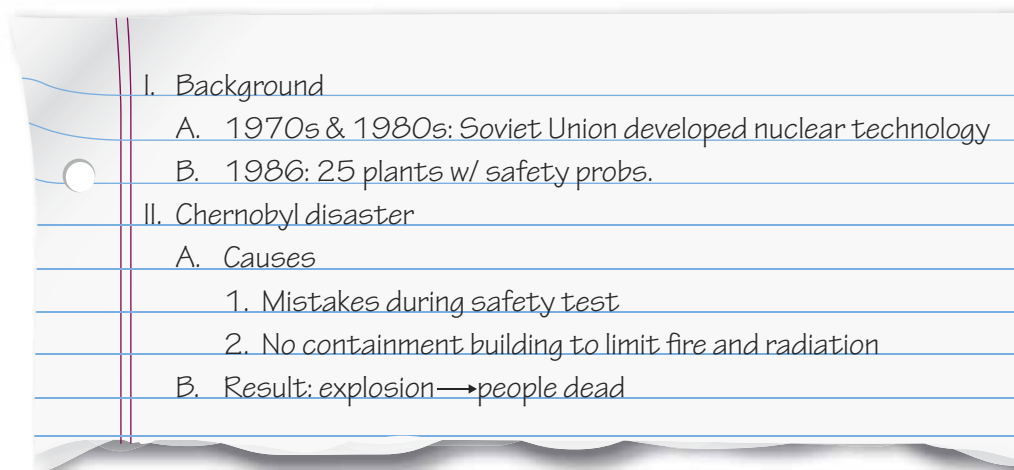
Critical Thinking Focus: Using an Outline to Take Notes


Using an outline can help you take organized and clear notes. In an outline, indicate main ideas with Roman numerals (I, II, III) and capital letters (A, B, C). Indicate details with numbers. As information becomes more specific, move it to the right.



track 2-3

- A** | Listen to the introduction to a lecture about the Chernobyl nuclear disaster. Read the outline as you listen.



 **B | Discussion.** With a partner, discuss the questions. Refer to the outline in exercise **A**.

1. What topics did the introduction cover?
2. Which items are main ideas? Which items are details?



C | Listening for Main Ideas. Listen to the entire lecture and answer the questions.

1. Check (✓) each effect of the explosion that the speaker mentions.
___ a. People were forced to leave their homes.
___ b. Animals died from exposure to radiation.
___ c. Young people became ill with thyroid cancer.
___ d. Billions of dollars were spent on health and cleanup costs.
___ e. Modern nuclear power plants are built with containment structures.
2. What happened to the town of Pripyat?
 - a. It was abandoned.
 - b. It burned to the ground.
 - c. It was turned into a tourist attraction.
3. What is surprising about Chernobyl today?
 - a. The residents of Pripyat have returned.
 - b. Many animals have come back to the area.
 - c. The radiation from the explosion has disappeared.



D | Outlining. Listen again. Continue the outline from exercise **A** on page 66. Complete the outline with details from the lecture. (See page 206 of the *Independent Student Handbook* for more information on outlining.)

C. The Chernobyl plant today

1. Still extremely _____
2. There are plans to build a _____

D. Radioactivity

1. Many areas still contaminated with cesium _____
2. Half-life of _____ years

E. The exclusion zone today

1. _____ people live there
2. Animals have returned, for ex., _____

After Listening

 **Discussion.** With a partner, answer the questions. Use your notes as well as your own ideas.

1. Describe the town of Pripyat before and after the disaster.
2. These days, a small number of tourists travel to Chernobyl. Would you go there if you had the opportunity?

Language Function

Emphasizing Important Information

Here are some expressions used to emphasize important information.

Don't forget that . . .

Let me stress that . . .

I want to emphasize that . . .

I would like to stress that . . .

I would like to point out that . . .

You need to remember that . . .

It is important to note/remember that . . .




track 2-5

A | In the lecture about Chernobyl, the speaker used a number of useful expressions to emphasize her point. Listen to the excerpts and fill in the missing expressions.

1. _____ Chernobyl had no containment structure. This building would have limited the fire and contained the radioactivity.
2. Thyroid cancer can be cured, but _____ survivors must spend a lifetime taking medication.
3. _____, however, that it will be decades before large numbers of people are allowed to come back and live in the exclusion zone.

Wild horses, called Przewalski horses, walk through the Chernobyl exclusion zone. These horses are extinct in the wild and can only be found in a few nature reserves and in the Chernobyl exclusion zone.



-  **B** | Form a group with two other students. Choose one of the types of energy below and read the facts. Then tell the members of your group what you know about your energy source. Add your own ideas. Emphasize the fact that you think is the most interesting.

Oil prices are rising. For example, it cost me almost \$60 to put gas in my car yesterday. Last year, it would have cost me only \$40. Still, it is important to remember that . . .



Oil

- The price of oil is rising.
- Oil spills pollute the environment.
- The top three oil-producing countries in the world are Saudi Arabia, Russia, and the United States.



Coal

- Coal deposits in the United States contain more energy than all the world's oil reserves combined.
- Coal is a relatively inexpensive energy source.
- Coal mining is dangerous. Between 1969 and 2000, more than 20,000 coal miners were killed.



Wind

- Wind power is clean, but is sometimes very noisy.
- The world will never run out of wind.
- Denmark gets 20 percent of its electricity from wind power.

Grammar

The Future Perfect

The future perfect describes a state or a completed action in the future. We use this tense when the state or action will be completed by a specified future time or event. The future perfect is formed with *will + have + the past participle*.

*If you start saving your money now, in ten years you **will have saved** enough money to retire.*

With the future perfect, a time expression is often used with *by* or *by the time*.

***By** my 30th birthday, I **will have graduated** from college.*



A | With a partner, complete these predictions about energy use in the future. Fill in each blank with the future perfect form of the verb in parentheses. Then take turns saying each sentence.

- 2025** 1. By 2025, the capacity of batteries _____ (increase) by 1000 percent.
- 2030** 2. By 2030, oil production _____ (return) to the level it was in 1980.
- 2040** 3. By 2040, we will still be using oil, but its role _____ (change) significantly.
- 2050** 4. By 2050, electric cars _____ completely _____ (replace) gasoline-powered cars.
- 2060** 5. By 2060, corporations _____ (build) wind farms along the coasts of most nations.




B | **Self-Reflection.** Form a group with two or three other students. Use *by* or *by the time* and the future perfect to make predictions about your future. Respond to your classmates' sentences. Use the topics listed below to help your discussion.

- graduate from college
- get a job
- buy my first house
- buy a car
- learn to drive
- learn a new language

By next year my husband and I will have bought a house.

That's nice. Where would you like to live?

Role-Playing a Town Meeting

-  **A** | Form a group with three other students. You will role-play a city council meeting about building a nuclear power plant. Read the situation and the role cards. Assign two students to each role.


Situation: The city council has approved a plan to build a nuclear power plant in your city. A small group of residents are against the plan. They are going to meet with city council members to discuss their concerns.

Role #1: Residents against the Nuclear Power Plant

1. Nuclear power plants aren't safe. We don't want a nuclear accident to happen here.
2. Nuclear power plants produce waste that is dangerous for many years.
3. People who live near a nuclear power plant might get cancer.

Role #2: City Council Members

1. Nuclear safety technology has greatly advanced in recent years.
2. France, Belgium, and Slovakia rely on nuclear power for more than 50 percent of their electricity. There have been no big nuclear accidents in those countries.
3. Nuclear power could help us stop using oil.

-  **B** | Work with the group member who shares your role. Think of more arguments to support your point. In addition, try to think of responses to the other side's arguments.

I think they will say that . . .

If they say that, we should emphasize that . . .

-  **C** | **Role-Playing.** Role-play the discussion in your group. Use expressions of emphasis when appropriate.

Thank you for meeting with us. We have a few concerns about this nuclear power plant.

I understand. First of all, let me stress that we will do everything possible to make this power plant safe.

Student to Student: Conceding a Point

In a debate or discussion, people often argue from different points of view. If an argument is very convincing to you, you can let the other person know that you agree with their point or that you accept that their point is true. Here are some expressions to concede a point.

Good point.

Fair enough.

I'll give you that.

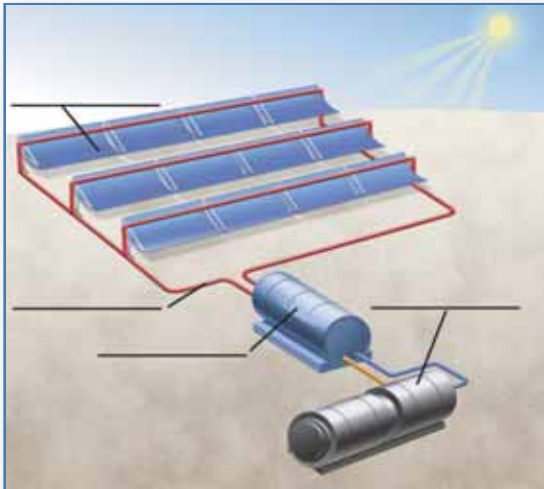
Solar cells turn sunlight into electricity.



SOLAR POWER

Before Viewing

Understanding Visuals. Read the information. Use the words in **blue** to label the diagram.



There are many different kinds of solar power systems. This diagram shows how parabolic trough solar power works.

1. Sunlight hits **curved mirrors** that direct all the light and heat to the middle of the mirror.
2. In the middle of the mirror, a **tube** filled with synthetic¹ oil is heated to about 700°F.
3. The oil runs into a **boiler** where it turns water into steam.
4. The steam spins an **electric turbine**, which turns and makes electricity.

¹**Synthetic** products are made from chemicals or artificial substances rather than from natural sources.


While Viewing

 **A** | Watch the video. Fill in the blanks with the word or words you hear.

The most powerful source of (1) _____ on the planet is actually out in space. It's (2) _____. More energy falls as sunlight on the United States in a single day than it uses in a (3) _____. But it's been difficult to turn that sunlight into (4) _____. Many people already use some (5) _____. But the world's need for power is great, and for solar power to be an alternative to other energy sources, it has to be both affordable and (6) _____.

 **B** | Watch the video again. Check (✓) the five true statements.

1. ____ Sacramento doesn't use much solar power.
2. ____ Many new homes have solar cells.
3. ____ Many people drive solar-powered cars.
4. ____ Solar panels shade parking lots.
5. ____ Solar panels shade city buildings.
6. ____ Sacramento gets lower prices by buying a lot of solar panels at one time.
7. ____ Solar power is very expensive to residents of Sacramento.
8. ____ People can sell electricity back to the power company.

 **C** | **Viewing for Specific Information.** Watch the video again. Circle the best answer to each question.

1. Where is the Kramer Solar Junction facility located?
 - a. In the mountains
 - b. In a desert
 - c. By the sea
2. How many people can the facility provide power for?
 - a. Half a million
 - b. Five million
 - c. Eight and a half million
3. What happens on days when there is no sun?
 - a. The facility buys back power from customers.
 - b. The facility uses power from batteries.
 - c. The facility uses backup natural gas generators.
4. What does the facility produce a lot of?
 - a. Power
 - b. Carbon dioxide
 - c. Smog



Ladybug robots crawl down a leaf. The robots are powered by solar power collectors attached to their backs.

After Viewing

 **Critical Thinking.** With a partner, discuss the questions.

1. What are some problems that could occur when using solar power?
2. In general, do you think the government should be responsible for developing alternative energies? Or, should it be left to private corporations to develop alternative energies? Explain your answer.
3. Mirrors now cover 1000 acres of the Mojave Desert at the Kramer Solar Junction power facility. What impact could this have on the local environment there?



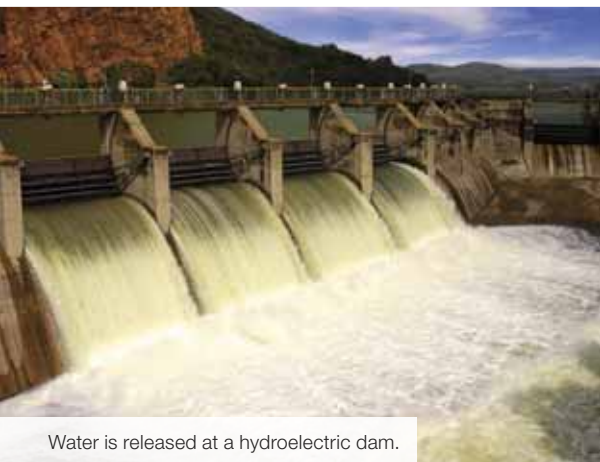
track 2-6

A | Meaning from Context. Read and listen to the information. Notice the words in **blue**. These are words you will hear and use in Lesson B.



People wait in line for gasoline.

When oil was inexpensive and **abundant**, people learned to depend on it for heat and fuel. More recently, oil has been more difficult to find, as it is hidden deep beneath the earth under many **layers** of solid rock. There have even been oil **shortages**, and we have had to wait in long lines and pay high prices for gasoline. A serious **disadvantage** of oil, coal, and similar fuels is the pollution they create around our cities.



Water is released at a hydroelectric dam.

Today, researchers are focusing on energy sources beyond oil. Countries and companies are **pursuing** alternative energy. They are looking for energy sources that are **renewable** and can never be used up. These alternative energies follow the **principle** that energy production should be sustainable, not temporary. People are showing a lot of **enthusiasm** for new energy technologies such as wind and hydroelectric power. Government **incentives** in the form of money or tax breaks have helped convince some companies to develop alternative energy technologies. Experts think that in the future the world will **utilize** alternative energy for a larger percentage of its total energy needs.

B | Write each word in **blue** from exercise **A** next to its definition.

1. _____ (adj.) present or existing in large quantities
2. _____ (n.) the feeling of being very interested in or excited about something
3. _____ (n.) things that encourage you to want to work hard or take action
4. _____ (n.) pieces of a material or substance that cover a surface or are between two other things
5. _____ (v.) making an effort to achieve a goal
6. _____ (n.) a factor which makes a person or a thing less useful or successful than other people or things
7. _____ (n.) a general belief about the way something should behave
8. _____ (v.) to use
9. _____ (adj.) resources that are natural and always available, such as wind and sunlight
10. _____ (n.) conditions in which there is not enough of something

USING VOCABULARY

A | What do you know about geothermal energy? Work with a partner and take the quiz. Circle **T** for *true* and **F** for *false*. Then check your answers at the bottom of the page. Which of these facts surprised you? Explain.

GEOTHERMAL ENERGY: What do you know?

- | | | |
|---|----------|----------|
| 1. Geothermal energy is a type of renewable energy. | T | F |
| 2. Geothermal energy is found in the layers of rock beneath the earth's surface. | T | F |
| 3. Geothermal energy is the most abundant energy source on earth. | T | F |
| 4. The U.S. government offers incentives to homeowners to install geothermal systems in their homes. | T | F |
| 5. Geothermal energy works on the same principle as the steam engine: when water is converted to steam, it produces force. | T | F |
| 6. Geothermal energy has been utilized for cooking and heating only in the past 50 years. | T | F |




Visitors swim in a hot spring created by geothermal energy. Geothermal energy is derived from the earth's internal heat.

B | **Self-Reflection.** With your partner, discuss the questions.

1. Do you plan to **pursue** more education sometime in the future? Explain.
2. What is a hobby or activity that you are **enthusiastic** about? Why do you enjoy it?
3. There is a **shortage** of nurses in the world. Would you ever consider becoming a nurse? Explain.
4. Do you have an **incentive** for learning English? What is it?
5. Do you think that people who avoid technology are at a **disadvantage** compared to people who use technology often? Explain.

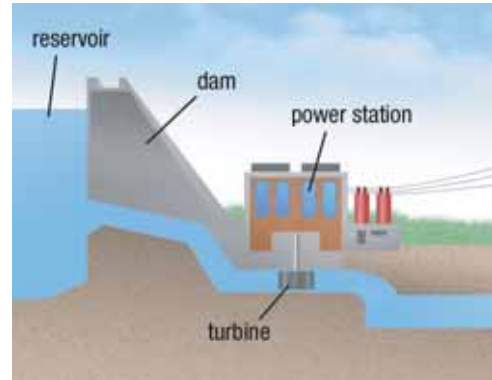
ANSWERS: The false statements are #3 (Other sources such as coal are more abundant.); #4 (The government offers incentives to install solar systems, but not geothermal.); and #6 (Geothermal energy has been used for thousands of years.)

Before Listening

 **Understanding Visuals.** Work with a partner. Look at the diagrams. How do wind and hydroelectric systems generate electricity? Share some ideas with your partner. (See page 216 of the Independent Student Handbook for more information on understanding visuals.)



Wind Power



Hydroelectric Power

Listening: A Study Group Discussion



A | Listening for Key Concepts. Listen to a student speaking at the beginning of a study group meeting. Are these statements true or false? Circle **T** for *true* or **F** for *false*.

- | | | |
|--|----------|----------|
| 1. The group is meeting for the first time. | T | F |
| 2. The group is preparing for a presentation. | T | F |
| 3. The presentation is about renewable energies. | T | F |
| 4. The first speaker will talk about fossil fuels. | T | F |



B | Using a Graphic Organizer. Listen to students presenting their research on solar, wind, and hydroelectric power. Complete the notes in the T-charts below and on page 77.

Solar Power Advantages

1. No fire = no _____
2. Free _____
3. 100% _____

Solar Power Disadvantages

1. Cost of _____
2. _____ cut off energy supply
3. _____ technology isn't good enough yet

Wind Power Advantages

1. Clean, renewable
2. No emissions = no _____
3. Costs _____
4. Many govts. offer _____

Wind Power Disadvantages

1. Look _____
2. Turbines make _____
3. No wind = no _____
4. Tech. for _____ hasn't been developed yet

Hydroelectric Power Advantages

1. Water is _____
2. Once built, doesn't need _____
3. No _____
4. Cost: _____

Hydroelectric Power Disadvantages

1. Damage to _____
2. Destroys _____
3. Forces people _____

After Listening

 **Critical Thinking.** Using your notes from pages 76 and 77, discuss the questions with a partner.

1. Which advantages do all three forms of energy share?
2. Imagine that your community has decided to build a renewable energy facility. Which energy source is best for your area? Consider the advantages and disadvantages of solar, wind, and hydroelectric power. Also consider the environment and weather in your area.

Pronunciation

Stressing Two-Word Compounds

In many two-word compounds, the stress is on the first word.

book review **foot**print **green**house **living** room **moving** van


Stressing both words in these situations can sound strange or can change the meaning of the sentence.

*The peas were grown in a **greenhouse**.* (a glass building for growing plants)

*I saw you standing in front of a **green house**.* (a house painted the color green)

 **A** | Listen to each sentence and check (✓) the correct meaning of the underlined phrase.

1. I met an English teacher.
☐ a teacher of the English language ☐ a teacher who is English
2. I had a glass of orange juice.
☐ juice made from oranges ☐ orange-colored juice, maybe mango
3. The police spotted a moving van.
☐ a van in motion ☐ a large van for moving furniture
4. Where should I put this hot plate?
☐ a plate that is hot ☐ a small stove for keeping food warm
5. That's a beautiful yellow jacket.
☐ a flying insect ☐ a coat

 **B** | With a partner, take turns saying the sentences from exercise **A**. Stress either the first underlined word or both of the underlined words. Your partner will tell you the meaning of the word or phrase he or she hears.

Language Function

Expressing Approval and Disapproval

Here are some expressions you can use to express approval or disapproval.

Approval

It's OK that . . .

I think it's fine to (verb) . . .

I (strongly) approve of (noun) . . .

It's OK (for someone) to (verb) . . .

Disapproval

It's wrong to (verb) . . .

It's not right that . . .

I (strongly) disapprove of (noun) . . .

It's not right (for someone) to (verb) . . .



track 2-11

A | In the study group discussion, there were a number of expressions for expressing approval and disapproval. Listen and fill in the missing expressions you hear.

1. On the downside, some people _____ wind turbines because they're ugly. They also complain about the noise the machines make, although most people think _____ put up wind turbines on farmlands.
2. A lot of people think _____ to destroy animal habitats this way. They also believe _____ that people are forced to leave their homes.

B | Read the statements. Use the ratings below to indicate your approval or disapproval of each topic.

1 = strongly approve 2 = approve 3 = neither approve nor disapprove 4 = disapprove 5 = strongly disapprove

Statements	My Rating
a. The city council has voted to raise taxes by one percent in order to put solar energy systems in all government buildings. Do you approve or disapprove of raising taxes?	
b. A dam will provide cheap hydroelectric power to millions of people. However, it will require hundreds of people to leave the valley where they have been living for many years. Do you approve or disapprove of building the dam?	
c. A proposed geothermal plant near your town will reduce your energy bills. However, the steam that is released contains a gas that smells like rotten eggs. Do you approve or disapprove of building the geothermal plant?	
d. Your neighbor wants to install a wind turbine in his backyard. Do you approve or disapprove?	



C | **Discussion.** Form a group with three other students and compare your ratings from exercise **B**. One student should read each statement. Then group members should take turns giving and explaining their ratings. Discuss whether you agree or disagree with your classmates' ratings.

Grammar

The Future Perfect Progressive

The future perfect progressive is used to talk about actions that will be in progress before a specific time in the future. This tense is formed with *will + have + been +* the present participle.

*By 2020, we **will have been drilling** oil wells for over 160 years.*

The future perfect progressive emphasizes the duration of an action up to a specific future time. Often, this tense is used with a time expression and *for*.

*In just two weeks, we will have been meeting **for three months**.*

A | Complete the sentences with the future perfect progressive form of the verb in parentheses.

1. In June of next year, my father _____ (living) in Brazil for 10 years.
2. In November, that company _____ (sell) wind turbines for six months.
3. On his next birthday, John _____ (drive) for 15 years.
4. In 2025, France _____ (produce) electricity with nuclear power for 60 years.
5. Next February, Sally _____ (work) as a nurse for 25 years.
6. In 2030, Iceland _____ (use) geothermal energy to heat homes for 100 years.
7. By next year, my book club _____ (meeting) for 5 years.

B | Fill in the blanks with the future perfect or the future perfect progressive form of the verb in parentheses.

I've been thinking about going to college for a while. In fact, by the end of June I (1) _____ (work) for two years. At that point, I'd like to quit my job and start studying. I have decided to get a degree in business at City University. By January 30, I (2) _____ (submit) my application. I hope that by May I (3) _____ (received) their answer. I hope to study with Professor Morse. He is very experienced. By next year, he (4) _____ (teach) business courses for more than 20 years. The local government wants people to study, so they began giving financial incentives to students last year. By the time I graduate, they (5) _____ (give) financial incentives for five years.



 **C** | **Discussion.** With a partner, discuss the questions.

Which of these inventions and technologies do you use? When did you start using them? By 2025, how long will you have been using them? Talk about additional technologies that you use often.

- video games
- personal computer
- smart phone
- high-definition television

I started using a cell phone in 2003. By 2025, I will have been using a cell phone for 22 years!

ENGAGE: Creating and Using Visuals in a Presentation

Your group is going to deliver a presentation to the class about an unusual source of energy. To support your presentation, your group will make a poster or a slide presentation with pictures, graphs, or other visual information. Your visual should include answers to these questions:

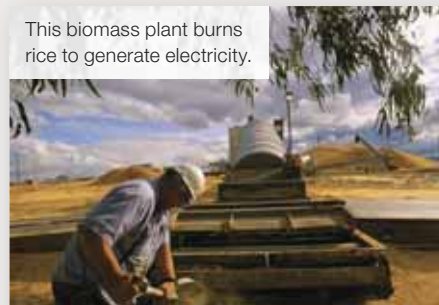
1. What is an unusual source of energy?
2. How does this energy source work?
3. What are the advantages and disadvantages of using this energy source?



A | Discussion. Form a group of two or three students. Examine the list of unusual energy sources and select one to research.

biodiesel	hydrogen fuel cells
biomass	methane from landfills
energy-generating floors	sugar
ethanol	tidal or ocean power

This biomass plant burns rice to generate electricity.



B | Researching. Outside of class, research your topic online or in the library. Use the outline below as a guide while you take notes about your topic. Find several images that relate to your energy source. (See pages 211–212 of the *Independent Student Handbook* for more information on doing research.)

- I. Type of energy
 - A. Description
 - B. Source
- II. Examples of how the energy is used
 - A. Places
 - B. Purposes
- III. Advantages
- IV. Disadvantages
- V. Future of this form of energy



C | Planning a Presentation. As a group, use your notes from exercise **B** and your images to create a poster or slide presentation about your energy source. Be sure that your poster or slide presentation answers the three questions in the box at the top of the page.



D | Presentation. When you give your presentation, all group members should speak. Be sure to explain the images you present, and answer any questions from your audience.

Presentation Skills: Fighting Nervousness

It is normal to be a little nervous at the beginning of a presentation. However, the first impression you make on your audience is very important. Make an effort to speak slowly and calmly at the beginning of your presentation. Memorizing the first few sentences you plan to say can sometimes help. Soon you will begin to feel more comfortable and gain confidence.

Migration

ACADEMIC PATHWAYS

Lesson A: Listening to a Radio Show

Talking about Your Family History

Lesson B: Listening to a Conversation between Friends

Doing a Research-Based Presentation

5



Think and Discuss

1. Look at the photo. Where do you think these birds are going?
2. What are some of the reasons that people and animals move in large numbers?
3. Where on our planet do you believe the first human beings lived? Why do you think so?

Migrating snow geese and Canada geese fly as the sun sets.

Exploring the Theme: Migration

Look at the map and photos. Then answer the questions.

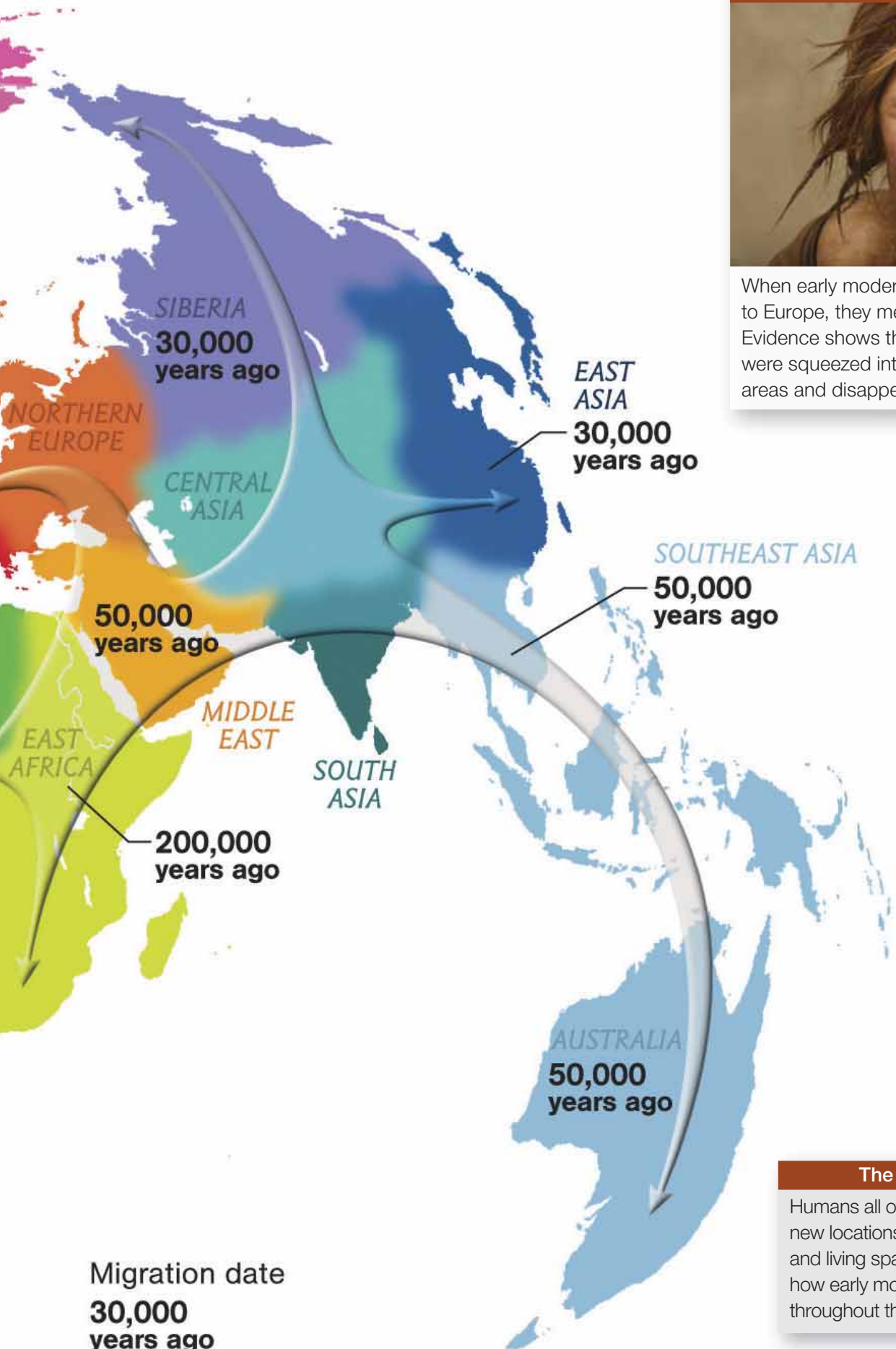
1. Look at the map. What do the arrows mean?
2. Who lived in Europe before the arrival of modern humans?
3. When did modern humans possibly arrive in Australia?
4. Think about your family and your ancestors. Where did they come from?



Early Modern Humans



The earliest evidence of modern humans in Australia is at Lake Mungo. Items found there are around 50,000 years old. This and other facts from genetic research support the theory that modern humans migrated to Australia from Africa.



Neanderthals



When early modern humans migrated to Europe, they met the Neanderthals. Evidence shows that the Neanderthals were squeezed into smaller and smaller areas and disappeared.

The Human Journey

Humans all over the world migrate to new locations in search of food, water, and living space. This map shows how early modern humans spread throughout the world.



A

Meaning from Context. Read and listen to the information about migration. Notice the words in **blue**. These are words you will hear and use in Lesson A.



A scientist studies DNA and other genetic material.

The first **migrations** in human history were probably voluntary. People chose to leave their birthplace in search of food, water, or living space. Other migrations have been involuntary, which means that people were forced to travel. Between the 16th and 19th centuries, for instance, European slave traders kidnapped an **immense** number of African natives and transported them against their will to the Americas. There, the Africans **encountered** a world unlike anything they had ever seen in their native lands. They were forced to work in terrible conditions, and many died young.

The practice of slavery **declined** in the 18th and 19th centuries. **Subsequently**, it was made illegal, and the descendants¹ of those early African slaves became free. Africans were **absorbed** into the cultures of the Americas, and today they are described, for example, as African Americans, Afro-Caribbeans, or Afro-Latin Americans.

In recent years, DNA² researchers believe that they have **linked** the DNA of all humans on our planet with the DNA of African natives. Scientists **assume** that the entire world was populated as a result of a migration that began in Africa around 70,000 years

ago. The **implications** of this idea would have shocked the European slave traders. They probably would have found it **incredible** to think that people all over the world were, in a sense, related to one another.

¹Someone's **descendants** are the people in later generations who are related to them.

²DNA is a substance that carries information in the cells of the body. It is responsible for characteristics being passed on from parents to their children.

B | Write each word in **blue** from exercise **A** next to its definition.

1. _____ (n.) unstated conclusions based on given facts
2. _____ (adv.) later or afterwards
3. _____ (adj.) very unusual, surprising, or difficult to believe
4. _____ (v.) met someone unexpectedly
5. _____ (n.) large-scale movements of people or animals
6. _____ (adj.) extremely large or great amounts
7. _____ (v.) became less in quantity, importance, or strength
8. _____ (v.) take something into a larger group and make it part of the group
9. _____ (v.) connected physically or logically
10. _____ (v.) to believe something to be true, although it is not a proven fact

USING VOCABULARY

A | Using a Dictionary. Complete the paragraph with the correct form of a word from the box. Use your dictionary to help you.

absorb

assume

implication

migrate

subsequently

Early modern humans (1) _____ to Britain around 30,000 years ago. (2) _____, however, most left just 3000 years later. Britain became very cold when an ice age began, and early modern humans left to find warmer areas. Humans returned to Britain when temperatures became warm again. Until recently, scientists (3) _____ that people returned slowly and in small numbers. Now, however, scientists believe that humans actually returned very quickly and in large numbers. Scientists developed this theory by using *carbon dating*. Carbon dating is a process used to tell exactly how old an object is by measuring the amount of carbon-14 it contains. Carbon-14 is a natural material that living things (4) _____ until they die. In Britain, scientists discovered the bones of a large number of animals such as horses and hares. The bones had marks on them showing that the animals had been killed and cut up by humans with tools. Scientists used carbon dating and found that the animals were killed very soon after the ice age ended. The (5) _____ was clear to the scientists: A large number of humans had followed the animals back to Britain soon after the temperature warmed.



Early modern humans hunt during the ice age.

B | Discussion. With a partner, answer the questions.

1. Early humans traveled **immense** distances to populate the world. Tell your partner about the longest trip you have ever taken.
2. Choose a time or a place in human history that you find **incredible**. Explain to your partner why you find this event interesting.
3. When old cultures **encounter** newer ones, both cultures change in positive and negative ways. What types of changes could happen when two cultures meet? Share your ideas with your partner.
4. In many developed countries, such as Italy and Japan, the population is **declining**. What effects might this have on these countries?

C | Choosing the Right Definition. Study the numbered definitions for **link**. Write the number of the definition next to the correct sentence below.

- _____ a. Thousands of years ago there was a link between Asia and North America.
- _____ b. Her necklace fell to the floor when one of the links broke.
- _____ c. There is a link between exercise and good health.

link /lɪŋk/ (**links, linking, linked**)

[1] **N-COUNT** If there is a **link** between two things, there is a relationship between them; for example, one thing causes or affects the other. • *the link between cell phones and car accidents* [2] **N-COUNT** A **link** between two things or places is a physical connection between them. • *A tunnel links between England and France.* [3] **N-COUNT** A **link** is one of the rings in a chain. • *a broken link on a bicycle chain*

Before Listening

 **Predicting Content.** With a partner, discuss the questions.

1. Look at the photos. Can you guess which of these people are related to each other? After you have guessed, look at the answer at the bottom of the page.



2. Sometimes, people who are genetically related look very different from one another. How does this happen?
3. Do you and your relatives look alike, or are there members of your family who look very different from everyone else? Explain.

Listening: A Radio Show

Critical Thinking Focus: Understanding Scientific Theories

In science, a *theory* is a general principle that is used to explain or predict events. Scientists look for *evidence* to prove that a theory is correct. For example, the evidence from carbon-14 dating supports the theory that humans returned to Britain shortly after the end of the ice age.



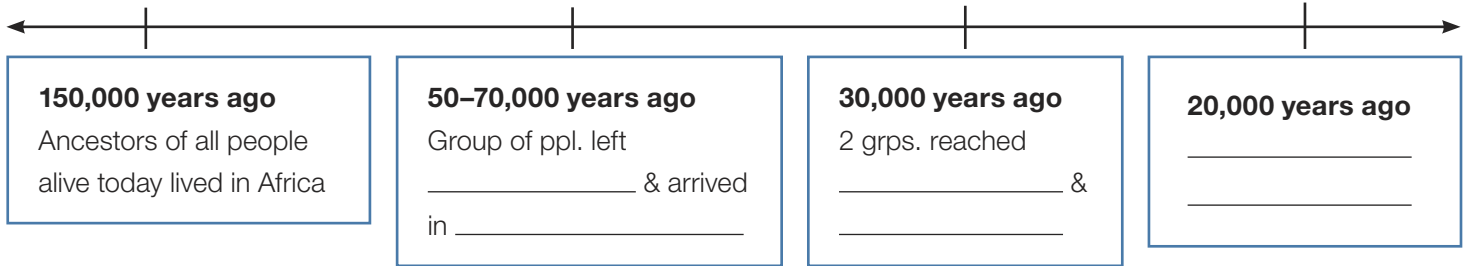
A | Listening for Key Concepts. Listen to the radio show and choose the best answer to each question. (See page 202 of the *Independent Student Handbook* for more information on improving listening skills.)

1. Which of these would be a good title for the radio show?
 - a. Modern Humans—Not Neanderthal Descendants
 - b. New Research Links Modern Humans to Africa
 - c. Modern Humans Settled South America Last
2. What type of evidence does Dr. Corke mainly rely on?
 - a. DNA research
 - b. Ancient bones and tools
 - c. Animal migration paths
3. Which statement about Neanderthals is true?
 - a. They became modern humans.
 - b. They crossed into the Americas.
 - c. They no longer exist.



track 2-13

B | Note-Taking. Listen again. As you listen, complete the time line about human migration.
(See page 206 of the *Independent Student Handbook* for more information on note-taking.)



track 2-13

C | Listening for Details. Listen again. Match each sentence beginning with the correct ending.

- | | |
|---|---|
| _____ 1. The group that followed the coast around the Arabian Peninsula and India . . . | a. probably encountered fewer Neanderthals. |
| _____ 2. The group that moved into Europe . . . | b. eventually reached Australia if the DNA evidence is correct. |
| _____ 3. The group that migrated into Central Asia . . . | c. most likely migrated to North America between 15,000 and 20,000 years ago. |
| _____ 4. People who lived in southern Siberia . . . | d. probably encountered a larger number of Neanderthals. |

After Listening



Critical Thinking. Form a group with two or three other students. Discuss the questions.

1. According to the information in the radio show, what could cause people with the same genetic ancestor to look very different from one another?
2. Dr. Corke said that “there is no evidence of Neanderthal DNA in the DNA of modern humans.” What does this imply about the relationship between modern humans and Neanderthals?
3. In what ways do you think humans have changed over time?

Language Function

Expressing Surprise

Here are some expressions you can use to show surprise.

Surprised

No kidding.

That's (really) surprising.

I'm (really) surprised to hear that.

I find that quite surprising. (formal)

Very Surprised

Wow!

That's amazing/astonishing/incredible!

Imagine that! (formal)



track 2-14

- A** | Read the information about expressing surprise. Then listen and repeat the expressions in the box.



track 2-15

- B** | In the radio show, the speakers used a number of useful phrases for expressing surprise. Listen and fill in the missing expressions.

1. **Dr. Corke:** This difference, called a mutation, is then passed down to all of that person's descendants, even 50,000 years in the future.

Interviewer: _____!

2. **Dr. Corke:** If they're right, all people are linked to that woman through their mothers.

Interviewer: _____.

3. **Dr. Corke:** We don't think they were absorbed into the modern human family.

If they had been absorbed, DNA analysis would tell us that, you see. The evidence would be there in the DNA of Europeans today.

Interviewer: _____! DNA certainly does tell us a lot!



- C** | Take turns telling a partner information about yourself. React to your partner's information, and use an expression of surprise if you are truly surprised.

I have lived in 13 different countries in my life.

That's incredible! What countries did you live in?

D | Discussion. Work with your partner. One student is Student A and the other is Student B. Read the animal facts to your partner. Respond to your partner with an expression of surprise from the box on page 88. Discuss any facts that are very surprising to you.

Giraffes and humans have the same number of bones in their neck—seven.

That's really surprising. I thought giraffes would have a lot more bones than humans have.



A giraffe

Student A

1. Giraffes and humans have the same number of bones in their necks—seven.
2. Cows cause more human deaths each year than sharks do.
3. Cockroaches can live as long as nine days without their heads, because the brain of the insect is located in its body.
4. It is estimated that there are nearly two billion cats in the world today.
5. The blue whale weighs 170 tons, which is about as much as 22 elephants.



A murder of crows

Student B

1. Any group of birds can be called a flock, but a group of crows is also called a murder of crows.
2. Deer are responsible for more human injuries and deaths than any other animal due to the many traffic accidents they cause.
3. Scientists have identified about 1.7 million species of animals, but there are many more species that have not been identified yet. There could be more unidentified species than identified ones.
4. The skin of a polar bear is actually black. Black skin helps the bears absorb as much of the sun's heat as possible.
5. Whiskers allow a cat to judge the width of a space, and whether it can fit into the space or not.

Grammar

Using Past Modals to Make Guesses about the Past

To make guesses about the past, use *could have*, *may have*, or *might have* and a past participle.

*Modern humans entering Central Asia **could have run** into Neanderthals.*

In short responses that are guesses, do not use the past participle.

A: Did they come from Siberia?

*B: They **may have**.*

When the verb *be* is used, keep the past participle in the sentence.

A: Were there 1000 people in the group?

*B: There **might have been**.*



A | Form a group with two or three other students. Read the situations and make guesses about what happened for each situation. Use *could have*, *may have*, *might have*, and the past participle of a verb.

1. Samantha walked halfway to the bus stop this morning, then suddenly turned around and walked back to her house. Why did she turn around?

She could have left the stove on.

She may have left her wallet at home.

She might have forgotten to lock the door.

2. Yesterday, Ali had to go to the hospital after playing basketball. What was wrong with him?
3. Dana got more exercise today than she has in years. What did she do?
4. In the 20th century, millions of people migrated to the United States. Why did they leave their own countries to go there?



B | **Discussion.** With a partner, discuss these questions about the early modern humans who left Africa. Make guesses using *could have*, *may have*, and *might have*. Give reasons for your guesses.

1. What did the early modern humans eat? How did they hunt?
2. What did they wear?
3. What were their families like?
4. What kinds of homes did they live in?
5. What tools did they use?
6. How did they spend their free time?

They might have eaten vegetables that they planted.

I don't know about that. You need to stay in one place to farm vegetables. These people may have moved around too much.

Talking about Your Family History

- A | Using a Graphic Organizer.** Where did your family members come from originally? If they left that place, where did they go? Fill in the chart with information about your family. If you are not sure about something, write a question mark. (See page 214 of the *Independent Student Handbook* for more information on using graphic organizers.)

Father's Parents Place of origin: Other places lived:	Mother's Parents Place of origin: Other places lived:
↓	↓
Father Place of origin: Other places lived:	Mother Place of origin: Other places lived:
↙	↘
Me Place of origin: Other places lived:	

- B | Discussion.** Form a group with two or three other students. Use the information from exercise **A** to talk about migration in your family. State the people's place of origin and other places where they lived. If you are not sure about where a family member came from, use *could have*, *may have*, or *might have* and make a guess. React to other members of your group and use expressions of surprise where appropriate.

I was born in Chicago and my parents were born in Holland. They came to the United States in 1967. I'm not sure about my mother's parents. I think they may have migrated from Poland.

No kidding! That's where my grandmother is from.

Student to Student: Expressing Interest

Use these expressions when another person is talking to show you are interested in what they are saying:

That's (really) interesting.
How interesting/fascinating.
Really?
How about that!



WILDEBEEST MIGRATION



Before Viewing

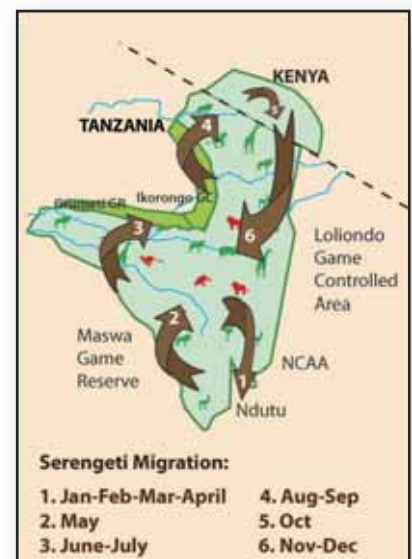
A | Understanding Visuals. You are going to watch a video about a yearly migration of wildebeest. Look at the map on this page and answer the questions.

- Which two countries does the wildebeest migration travel through?

- Use the map key to follow the migration of the wildebeest throughout the year. Where are the wildebeest today?


B | Using a Dictionary. You will hear these words in the video. Match each word with its definition. Use your dictionary to help you.

- calf (n.) _____
 - carcass (n.) _____
 - graze (v.) _____
 - herd (n.) _____
 - predator (n.) _____
- to eat grass or other growing plants
 - a large group of animals of one kind
 - an animal that kills and eats other animals
 - a young wildebeest
 - the body of a dead animal




Millions of animals such as wildebeest and zebras migrate through the Serengeti National Park, shown here in green.

While Viewing

-  **A | Sequencing Events.** Watch the video. Number the events in order from 1 to 5. The first event has already been numbered for you.

- ___ a. The wildebeest graze in the Masai Mara.
- 1 b. The wildebeest give birth.
- ___ c. The wildebeest arrive at the Masai Mara.
- ___ d. The migration begins.
- ___ e. The wildebeest arrive back at the Serengeti.

-  **B | Note-Taking.** Watch the video again. Complete the student notes with information from the video.




An elephant crosses the road in the Serengeti National Park.

Wildebeest Migration

- 2 mil. animals travel _____ miles
- At beginning of yr., all wildebeest give _____ in same month
 - Calves can run _____ 2 days after birth
- Nobody knows what triggers _____
- 200,000 of the _____ wildebeest will die from starvation, disease, and overexertion
 - Others die from predators; cat tries to separate calf from _____
- Kenya's Masai Mara: _____ create huge area of _____
- In _____, the wildebeest head south again to the _____.

After Viewing

-  **Critical Thinking.** Discuss the questions with a partner.

1. In the video, you heard that “no one knows what triggers the migration.” What are some possible explanations for why the wildebeest start their migration?
2. Recently, the government of Tanzania wanted to build a highway across the Serengeti National Park. The road would have cut across the migration routes of the wildebeest. What arguments could be made against building this highway? What arguments could be made in favor of building it?



A

Meaning from Context. Read and listen to the interview about butterfly migration. Notice the words in **blue**. These are words you will hear and use in Lesson B.

Interviewer: I'm talking with Maxine Felton, a butterfly expert. For more than 20 years she has **dedicated** herself to the study of butterflies. What kinds of butterflies do you study, Maxine?

Maxine: I study the monarch butterfly. It is an orange, black, and white butterfly that's **approximately** 10 centimeters across.

Interviewer: What is special about the monarch butterfly?

Maxine: Well, it is the only butterfly that migrates north to south with the seasons, the same way that many birds do.

Interviewer: How interesting! And how do you follow the monarch butterfly migration?

Maxine: Well, I glue little numbered labels on their wings. The labels help me follow their migration patterns. The labels are small, so they don't **interfere** with flying. Nighttime is the best time to glue on the labels, because monarchs stay on the ground at night. Their flying is **restricted** to the daylight hours.

Interviewer: And where do the monarchs go in the winter?

Maxine: Many go to the Mexican Monarch Butterfly Reserve. When the butterflies arrive there, they cover the trees in **overwhelming** numbers.

Interviewer: That must be a beautiful sight! It sounds like there are plenty of monarchs.

Maxine: Well, actually, there are fewer than there once were. There are various threats to monarchs. For example, in the Butterfly Reserve some **illegal** logging still takes place. In many places, plants such as corn and wheat have **displaced** many of the milkweed plants that monarchs need for food.

Interviewer: I see. Is there any good news for monarch butterflies?

Maxine: Yes, there is. Many new conservation agencies and areas have been **established** to protect monarchs. Recently, the World Wildlife Fund, the Mexican government, and Mexican billionaire Carlos Slim **invested** 100 million dollars in a fund to protect wildlife in Mexico. Part of the money will help to **ensure** the continued protection of monarch butterflies in Mexico.



A woman takes a photo of hundreds of butterflies.



B

Self-Reflection. With a partner, discuss the questions below.

1. If you had 100 million dollars to **invest**, what would you spend it on? Explain your choices.
2. Do you think it is OK for scientists to track animals as long as their efforts don't **interfere** with the animals' migration? Why, or why not?

USING VOCABULARY

A | Complete the paragraph with the correct form of a word from the box.

approximately
displace

ensure
establish

illegal
interfere

invest
overwhelming

Salmon fishing in the Pacific Ocean is a huge business. In a good year,

(1) _____ 800,000 tons

of salmon are caught, but today salmon populations are facing

(2) _____ challenges.

River dams are one problem. Salmon are migrating fish that must return far up rivers and streams to the spot where they were born in order to reproduce.¹ Dams built on rivers can

(3) _____ with salmon

migration and, as a result, with salmon reproduction. Drift nets in the ocean are another obstacle. These nets, which are 32 feet (10 meters) across and 30 miles (48 kilometers) long, are (4) _____ in many countries because they kill too much sea life. Still, certain countries continue to use them.

As competition for wild salmon increases, new ways of meeting the demand are being tested. Farmers have (5) _____ salmon farms where the fish are raised in saltwater cages. The farms have been very successful, and farm-raised salmon has (6) _____ wild salmon in many restaurants. Moreover, some countries have (7) _____ money to help raise and release young salmon in rivers and streams. These salmon make their way to the ocean, where they grow to adulthood. Many will be caught and eaten, but the ones that return upstream will produce millions of babies to (8) _____ that salmon will survive.



Salmon swim upstream.

¹When people, animals, or plants **reproduce**, they produce babies.

B | **Critical Thinking.** Work with a partner. Read the information and discuss the questions.

Salmon travel through the national waters of many countries without restrictions. The governments of the United States and Canada believe that every migrating salmon belongs to the country where it was born, no matter where it goes in the ocean. The fishermen of some countries believe that fish, a gift of nature, belong to everyone. These fishermen believe that they should be able to catch and keep the salmon.

1. Which position do you agree with? Explain your reasons.
2. If a fisherman catches a migrating salmon, how could he figure out if it is a migrating salmon from a different country?

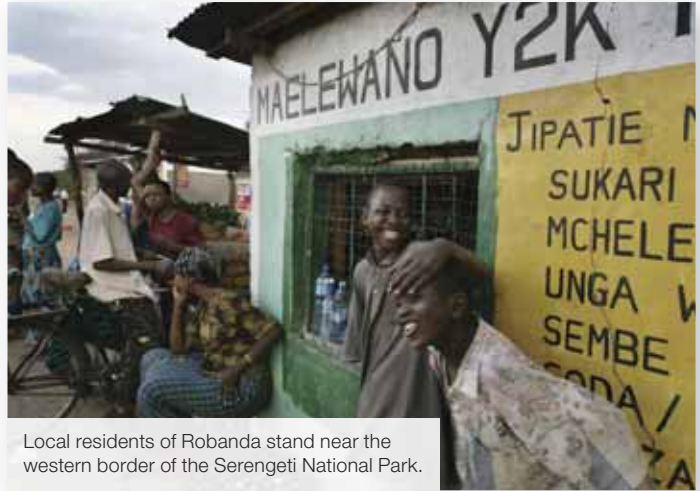
Before Listening



Prior Knowledge. Form a group with two or three other students. Look at the photos and read the captions. Then discuss the questions.



Each year, tourists come in large numbers to visit the Serengeti Mara ecosystem.



Local residents of Robanda stand near the western border of the Serengeti National Park.

1. Where were these photos taken? Do you know anyone who has been to this place?
2. Why have tourists with cameras come to this place?
3. Do you think tourism helps or hurts the people of Robanda? Explain.

Listening: A Conversation between Friends



track 2-17

A | Listening for Main Ideas. Listen to Sandy and Larry talking about Larry's trip. Circle the correct answers.

1. The size of the Serengeti Mara ecosystem has _____.
a. increased b. decreased
2. The human populations in Kenya and Tanzania have been _____.
a. increasing b. decreasing
3. The Robandans _____ to accept money to move from their village.
a. want b. don't want
4. Animal populations in the Serengeti Mara ecosystem are _____.
a. in trouble b. doing all right



track 2-17

B | Read the statements. Then listen again. Circle **T** for *true* or **F** for *false*.

- | | | |
|---|----------|----------|
| 1. Sandy has been to Tanzania to see the wildebeest migration before. | T | F |
| 2. Bush meat is an important source of food in northern Tanzania. | T | F |
| 3. Wildebeest are the only animals in the Serengeti Mara ecosystem. | T | F |
| 4. The Ikoma people did not want to leave the park in 1951. | T | F |
| 5. The people of Robanda have agreed to accept money to move again. | T | F |

After Listening



Critical Thinking. Discuss the questions with a partner.

1. In your own words, explain the conflict between the needs of the animals and the needs of people of the Serengeti Mara ecosystem.
2. If you were villagers from Robanda, would you accept the offer of money to move off the land? Why, or why not?
3. In Tanzania, successful ecotourism corporations can be extremely powerful. How can the government of Tanzania make sure that corporations do not abuse their power?

Pronunciation

Using Question Intonation

In most *yes/no* questions, the intonation rises at the last content word in the sentence. Content words are words that are important to the meaning of the sentence.



track 2-18

Do you have the time?

Can you show me the pictures you took?

In *wh-* questions, the intonation rises and then falls at the end of the sentence.

How was your trip?

When did you get there?



track 2-19

A | Listen to the questions. Draw intonation lines like the ones in the box above.

1. Have you ever tried bush meat? Would you like to?
2. Why do animals migrate? What about humans?
3. Is migrating dangerous for animals? What are the risks?
4. How many tourists visit Tanzania each year?
5. Do you enjoy photography?
6. Should the people of Robanda be forced to move?



B | With a partner, take turns asking and answering the questions from exercise **A**. Be sure to use correct question intonation.

Language Function

Expressing Hopes

We use the following expressions to express hopes about the future.

I (really) hope (that) . . .

I'm hoping (that) . . .

It would be nice/great/wonderful/ideal if . . .



track 2-20

A | In the conversation, Larry and Sandy used a number of useful expressions for expressing hopes. Listen and fill in the missing expressions.

1. **Larry:** _____ there were enough land for people and for animals, but there isn't.
2. **Sandy:** Hmm. _____ that some compromise can be reached.
3. **Sandy:** What a wonderful trip you had! I'm really jealous! _____ to go on a trip like that.



B | **Role-Playing.** Form a group with two or three other students. As a group, choose one of the following scenarios and role-play the situation. Be sure to use phrases for expressing hopes.

1. Your city council has announced plans to build a new community center. Talk about your hopes for the new community center. For example, you can talk about the location, the cost, and the activities and classes that you want the community center to have.

I hope that the community center isn't too far away.

Yes, that's important. And it would be great if they offered language classes.

2. Your next-door neighbors moved out, and your apartment manager told you that new neighbors are going to move in next week. Express your hopes about the new neighbors. For example, you can talk about who the neighbors will be, what kind of neighbors they will be, or what kind of relationship you will have with them.
3. You and your group members are going on a camping vacation in a national park. You've never gone camping before. Express your hopes for the trip. For example, you can talk about the weather, the campground, the activities available, and animals you might encounter.

Grammar


Using Past Modals to Make Inferences

We use *must have* and *can't have* to make inferences from evidence. Use *must have* + past participle to infer that something was almost certainly true or almost certainly happened.

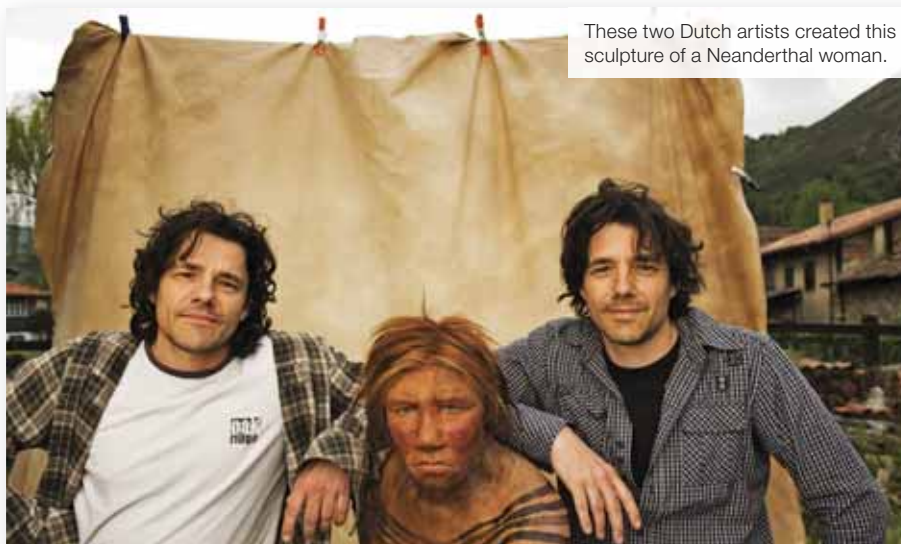
*It **must have been** incredibly difficult for the Ikoma people to leave the Serengeti.*

Use *can't have* + past participle to infer that something was unbelievable or nearly impossible.

*Well, it's their land, so they **can't have felt** happy about being asked to move again.*

 **Making Inferences.** With a partner, read the scenarios. Then answer the questions by making inferences with *must have* and *can't have*.

1. Researchers have found that Native Americans' DNA links them to people living in southern Siberia. The DNA does not link them with Europeans. Where did the Native Americans originally migrate to the Americas from?
2. Researchers have been unable to find any Neanderthal DNA in studies of modern humans, although they know that Neanderthals lived in Europe and Asia when modern humans first came there. What happened to the Neanderthals?
3. The oyamel tree of Mexico is the favorite habitat of the monarch butterfly. Three trees were found on the ground in the Mexican Monarch Butterfly Reserve. Logging is illegal there, and logging companies are careful to obey the law. What happened to the oyamel trees?
4. A large group of wildebeest suddenly stopped grazing and began running as fast as possible. Why did the wildebeest suddenly start running?



These two Dutch artists created this sculpture of a Neanderthal woman.

5

Your group is going to do a research project about a migrating animal. Then you will give a presentation to the class with the information you found.



A | Getting Background Information. Form a group with two or three other students. Discuss the answers to the following general questions about migration:

- Why do animals migrate?
- How do animals know when to migrate?
- What are some types of migration?
- How do animals know where to go?



B | Researching. Select a migrating animal that you will present to the class. Find a photo of the animal and print it out. Do not choose an animal that you learned about in this unit. On your own, research the animal. When you research the animal, follow these steps:

1. Look for information on the Internet, or in newspapers, books, and encyclopedias.
2. Choose relevant key words to help you narrow down your search.
3. Make sure the information is accurate and reliable. (See pages 211–212 of the *Independent Student Handbook* for more information on researching.)



C | Organizing Information. Use the chart to take notes about the animal you selected. Then discuss your notes with your group members. Did you all find similar information?

Name of Animal	
Size of Animal	
Habitat	
Lifespan (Length of Life)	
Geographic Range	
Distance Traveled	
Time of Migration	
Reason for Migration	
Description of the Migration	
Other Interesting Points	



D | Presentation. Organize your notes and practice your presentation. Then present the information to the class. Answer any questions from your audience.

Presentation Skills: Preparing for Audience Questions

Questions from the audience are part of most presentations, so it's a good idea to be prepared for them. As part of your preparation, spend some time thinking about the kinds of questions that your audience might ask you. Then think about how you will answer.

Tradition and Progress

ACADEMIC PATHWAYS

Lesson A: Listening to a Student Presentation
Interviewing a Classmate

Lesson B: Listening to a Study Group Discussion
Evaluating Web Sources

6



Think and Discuss

1. What is interesting or surprising about this photo?
2. What does the word *progress* mean to you?
3. What traditions are important to you? What would happen if these traditions disappeared?

A man in Alaska uses a laptop computer while sitting on a snowbank.

Exploring the Theme: Tradition and Progress

Look at the photos and read the captions. Then discuss the questions.

1. Which of these photos do you find the most interesting? Explain.
2. Why would people want to keep their traditions?
3. How do you think life has changed for these people over the last 10 years?



Female weavers work in Chinceros, **Peru**. The weavers keep their traditional weaving skills alive by using them in a modern way—to earn money to support their families and their town.

Peru



A woman in Kyoto, **Japan** shops for food along with her helper, a talking robot.



A teenager learns to play a new sport—basketball—near his home in Batsumber, **Mongolia**.

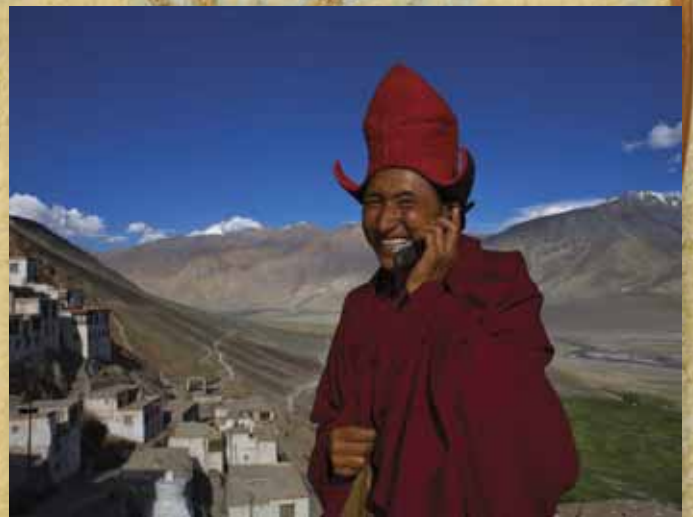


Japan

Mongolia

India

Tanzania



A monk talks on a cell phone at a monastery in **India**.



The Hadza people of **Tanzania** are one of the last hunter-gatherer groups on earth. Today, their traditional way of life is changing.



A

Meaning from Context. Read and listen to the article. Notice the words in **blue**. These are words you will hear and use in Lesson A.

Long ago, people lived as hunters and gatherers. Over time people learned how to grow plants and raise **domestic** animals. Once this happened, there was a **transition** to **agriculture** in many societies. However, even today there are groups who **reject** farming and continue to hunt animals and gather their own food.

The Hadza people are a group of hunter-gatherers who live in an **isolated** part of northern Tanzania. They have lived in the Great Rift Valley for a **period** of 10,000 years. The Hadza communicate in their own special language, called Hadzane.

The Hadza are not part of the modern economic system of Tanzania. When they are hungry, they can hunt or gather what they need for free. Hadza men can make a little money by **displaying** their hunting skills for tourists. It is an interesting **contradiction** that although the Hadza have very little, they share a lot. In fact, they share everything they have with others.

In the Great Rift Valley, modern farming has spread in recent years, and this development has had serious **consequences** for the Hadza. Their homeland is now only 25 percent of the size it was in the 1950s. Hunting is now more difficult for them, as there are fewer animals than before. The Hadza people **anticipate** that their way of life will disappear in the near future.



A Hadza hunter climbs a tree to see animals in the distance.



B | Write each word in **blue** from exercise **A** next to its definition.

1. _____ (v.) to realize in advance that an event may happen
2. _____ (adj.) not wild; kept on farms or as pets
3. _____ (n.) the results or effects of an action
4. _____ (n.) a situation in which two opposite facts are true at the same time
5. _____ (v.) showing
6. _____ (n.) farming and the processes used to take care of crops and animals
7. _____ (adj.) far away from large cities and difficult to reach
8. _____ (n.) a length of time
9. _____ (v.) to turn down or not accept
10. _____ (n.) a change

USING VOCABULARY



A | Discussion. With a partner, discuss the questions.

1. In many ways, the Hadza people reject the modern world. Do you know other people or groups that reject things about the modern world? Why do they reject those things?
2. Many societies transitioned from hunting and gathering to agriculture. In what ways did people's lives probably change as a result?
3. How might people such as the Hadza, who speak their own language, communicate with the outside world?



B | Using a Dictionary. Work with your partner. Find the form and definition of each vocabulary word to complete the information below. Use your dictionary to help you.

Vocabulary Word	Related Words	Related Definitions
1. anticipate (v.)	(n.) <u>anticipation</u>	<u>looking forward to something</u>
2. agriculture (n.)	(adj.) _____	_____
3. consequences (n.)	(adv.) _____	_____
4. contradiction (n.)	(v.) _____	_____
	(adj.) _____	_____
5. displaying (v.)	(n.) _____	_____
6. domestic (adj.)	(adj.) _____	_____
7. isolated (adj.)	(v.) _____	_____
	(n.) _____	_____
8. period (n.)	(adj.) _____	_____
9. reject (v.)	(n.) _____	_____



C | Self-Reflection. Form a group with two or three other students. Discuss the questions.

1. Do you think it is rude to **contradict** your parents, teachers, or other people who have authority? What do you say if you disagree with their ideas?
2. Have you ever experienced a **rejection** such as not getting a job you wanted? Explain what happened.
3. Have you ever done something that had **consequences** you did not expect? Explain the situation.

Before Listening



Predicting Content. Look at the images and read the information about Bhutan. Then answer the questions with a partner.



1. Where is Bhutan located? Is it a large or a small country?
2. What image do you see on Bhutan's flag? What do you think it means?
3. Do you think Bhutan is a modern country?
4. Bhutan is trying to measure its *Gross National Happiness*. What do you think this phrase means?

The flag of Bhutan



Bhutan Fast Facts

Population: 708,427

Capital: Thimphu

Area: 14,824 square miles
(38,394 square kilometers)

Listening: A Student Presentation



track 2-22

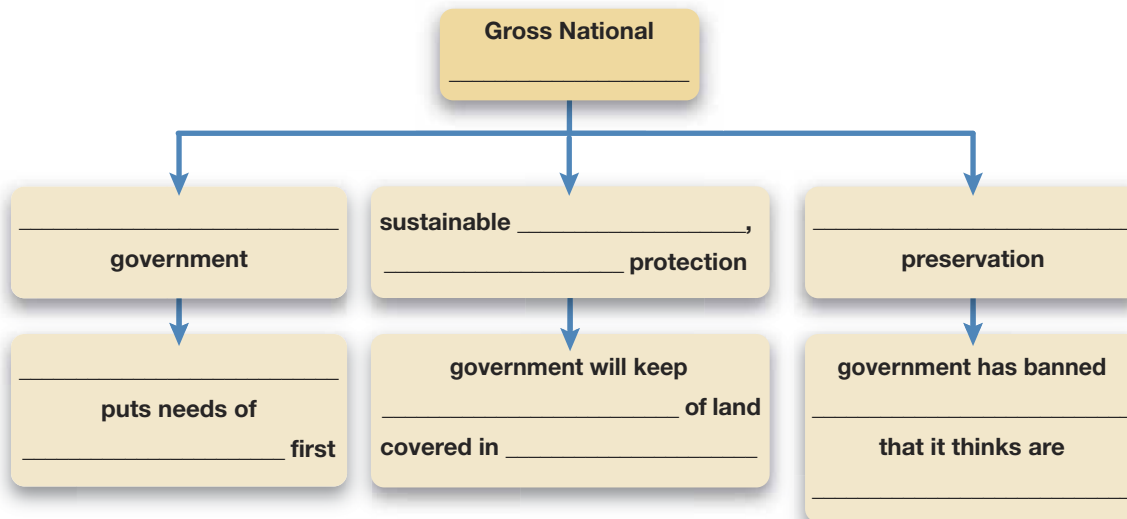
A | Listening for Main Ideas. Listen to a student's presentation about the country of Bhutan. Then choose the correct answers.

1. Why did Bhutan reject the modern world?
 - a. Using technology was against the law.
 - b. The government wanted to avoid negative influences.
 - c. The people believed they didn't need any technology.
2. What government change is happening in Bhutan?
 - a. It is moving toward democracy.
 - b. It is becoming an absolute monarchy.
 - c. The king is taking away many of the people's powers.
3. Sompel says that cultural preservation is a challenge for Bhutan because _____.
 - a. half of the population is under the age of 30
 - b. many people can't read or write
 - c. Bhutan produces movies about cultural issues
4. What is Sompel's attitude about Bhutan's future?
 - a. It is confusing to him.
 - b. It makes him feel sad.
 - c. He is hopeful.



track 2-23

B | Completing an Idea Map. Listen again to part of the presentation. Complete the idea map with information from the presentation. (See page 214 of the *Independent Student Handbook* for more information on using graphic organizers.)



After Listening



Critical Thinking. Form a group with two or three other students. Discuss the questions.

1. Do you think that the decision to open up Bhutan to the modern world was the correct decision? Explain.
2. Bhutanese people were allowed to watch TV for the first time in 1999. If it had been your decision to make, which television programs would have been shown first? Which ones would have been shown later or not at all? Give reasons for your decisions.
3. What does a government have to do to make sure its citizens are happy? Brainstorm some ideas with your group.

Children play video games in a Thimphu café.



Student to Student: Congratulating the Group

If you feel your group has done a good job on a task, use these expressions to congratulate everyone.

Nice job, everybody!
We make a great team!
Great going, gang!
Way to go, guys!

Language Function

Using Fillers

When we speak, we sometimes forget a word or need a moment to think about what we want to say next. In these situations, we use fillers to fill the gaps in the conversation.

Informal

... umm ...
 ... oh, you know ...
 ... hang on ...
 ... it's on the tip of my tongue ...

More Formal

... let me think ...
 ... just a moment ...
 ... how should I put it ...
 ... oh, what's the word ...



track 2-24

A | In the student presentation, the speaker uses a number of fillers. Listen to the sentences and fill in the missing expressions.

1. He wants our country's development to be guided by . . . _____
 . . . oh yes, *Gross National Happiness*.
2. There are four parts . . . _____ . . . four "pillars" to this approach:
 good government, sustainable development, environmental protection, and cultural preservation.



B | Work with a partner. Take turns saying the sentences from exercise **A**, using different fillers to fill the pauses.




C | **Self-Reflection.** With your partner, take turns answering the questions below. Use fillers to allow yourself extra time to answer.

Where did you go on your last vacation?

Oh, let me think . . . I went to Buenos Aires.

1. Where did you go on your last vacation?
2. What was your favorite TV show when you were a child?
3. What did you have for dinner last night?
4. Who was your favorite teacher?
5. Who was the last person you danced with?
6. What was the title of the last book you read?

-  **D** | With your partner, read the definition of *buzzword* and the four buzzwords in the box. Then practice the conversations below. When you see a blank, use a buzzword. Continue each conversation and use fillers as needed.

A **buzzword** is a word or expression that has become common in a particular field and is being used often by the media. For example:

- **the blogosphere:** all blogs on the Internet, the bloggers, and their opinions
- **brick-and-mortar:** a company operating in a building or a store, not on the Internet
- **climate change:** changes in weather and temperature over a long period of time
- **go green:** take steps to reduce one's negative impact on the environment

(See page 208 of the *Independent Student Handbook* for more information on building your vocabulary.)

A *brick-and-mortar* store operates in a building, and not on the Internet.



Planting a tree is one way to *go green*.



1. **A:** Wow, another hot day! This must be the tenth in a row!
B: I know! If you ask me, it's probably due to _____ . . .
2. **A:** Have you finished setting up your environmentalism blog yet?
B: No, but I will soon. I'm really excited to enter _____ . . .
3. **A:** I sold my car and I'm only using a bicycle now. I'm also being careful to recycle everything that I can.
B: Really? I can't believe it! You're the last person I thought would ever _____ . . .
4. **A:** Did you know that a new bookstore is opening downtown?
B: Who cares? I buy all my books online. I have no use for _____ bookstores anymore.

Grammar

Verb + Gerund

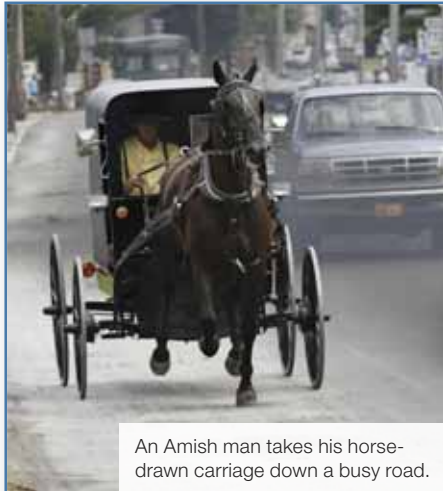
Certain verbs can be followed by a *gerund* but not by an infinitive. A *gerund* is a word ending in *-ing*. Here are some verbs that can be followed by a *gerund*.

admit	appreciate	defend	enjoy	quit
avoid	be used to	deny	look forward to	risk

*The king will not open up Bhutan all at once **and risk ruining it**.*

*We **are looking forward to visiting** the islands off Cornwall this summer.*

- A** | Read this article about the Amish people. Underline the verbs that are followed by a gerund.



An Amish man takes his horse-drawn carriage down a busy road.


The Amish people of the United States enjoy living simply. They stop attending school around the eighth grade, and they live without modern conveniences. The Amish resist using technologies such as electricity, automobiles, and computers. Many do not even like having their picture taken. Amish people are accustomed to riding in horse-drawn carriages. Most Amish people live in the states of Pennsylvania, Indiana, or Ohio. The average Amish family has five children.

The population of Amish people in the United States keeps growing. A recent survey counted 230,000 Amish people. Sixteen years ago, there were only about 115,000 Amish people. Older Amish communities no longer have enough land for their people. Although the Amish recommend separating oneself from the modern world, many can no longer avoid going out into the modern world to find a place to live. Rather than risk living near people who are not Amish, some Amish have moved far from their traditional homes to isolated areas of the United States and Canada.


- B** | **Collaboration.** Work with a partner. Use five of the verbs you found in exercise **A** to write sentences about your own feelings or experiences. Underline the verb + gerund in each sentence. Then share your sentences with a partner.


I enjoy giving chocolate to my friends on Valentine's Day, but I hate chocolate myself.

Interviewing a Classmate

-  **A** | Work with a partner. Your partner will choose a country or a city where he or she has lived. Interview your partner to determine the *Gross National Happiness* of the country or city. Read each question to your partner. Mark your partner's answer with a check (✓). Then switch roles.

Gross National Happiness	Yes	No
Pillar 1: Good Government		
1. Does the government respond to the needs of the people?		
2. Does the government treat people fairly and with equality?		
3. Is the government's use of money, property, and other resources efficient?		
Pillar 2: Sustainable Development		
1. Do most people enjoy their jobs?		
2. Do most jobs provide enough money to live on?		
3. Do most companies protect workers from dangerous working conditions?		
Pillar 3: Environmental Protection		
1. Are levels of pollution, noise, and traffic acceptable?		
2. Are there parks or natural areas available to the public?		
3. Are there areas set aside for nature?		
Pillar 4: Cultural Preservation		
1. Do people try to maintain traditions along with new practices?		
2. Are old buildings restored and valued?		
3. Do young people value and respect the older generations?		

-  **B** | **Discussion.** With your partner, discuss the questions from exercise **A**. Take notes on your partner's responses. If you answered *no* for any question, explain why you chose that answer.

-  **C** | Share your *Gross National Happiness* interviews with the class. Who in the class said *yes* to most questions? Who in the class said *no* to most questions? Talk about the answers with your class.

Farm Restoration



The *Reinvest in Minnesota* project helps farmers return their farmlands to a natural state.



Before Viewing

A | Meaning from Context. Read the sentences. Notice the words in **blue**. You will hear these words in the video.

1. I had an **epiphany**—it's more important to be happy than to be successful.
2. The area around Tintagel Castle in the United Kingdom experiences **erosion** as the sea takes more rock and soil each year.
3. When the actress died, she left 1000 acres of land for a wildlife reserve—a **legacy** for nature lovers to enjoy for many years in the future.
4. **Marginal** farmland is difficult to farm and does not produce a lot of crops.
5. During long, dry summers, many forests in California become **susceptible to** fire.
6. The flooding of the Mississippi River **took its toll** on riverside towns and washed away houses and farms.

B | Using a Dictionary. Match each word in **blue** from exercise **A** with its definition.

- | | | |
|--------------------------|-------|---|
| 1. epiphany (n.) | _____ | a. land or money given to future generations |
| 2. erosion (n.) | _____ | b. to have a bad effect or do a lot of damage |
| 3. legacy (n.) | _____ | c. likely to be affected by |
| 4. marginal (adj.) | _____ | d. a moment of sudden understanding |
| 5. susceptible to (adj.) | _____ | e. not very useful; on the edge of usefulness |
| 6. took its toll (v.) | _____ | f. the removal of soil or rock by wind or water |

While Viewing


 **A** | Watch the video. Then circle the correct answers.

1. What problem did Okabena Creek cause for farmer Dale Aden?
 - a. There wasn't enough water in it for farming.
 - b. It sometimes flooded part of his farmland.
 - c. He couldn't use the water because it was polluted.
2. What was Dale Aden's epiphany about his marginal farmland?
 - a. He realized that he could farm more corn and soybeans on it.
 - b. He realized he could stop farming it if someone would buy it.
 - c. He realized that he could return the land to wildlife.
3. What does the organization *Reinvest in Minnesota* do?
 - a. It buys marginal farmland from farmers for wildlife.
 - b. It helps farmers flood their land so people can't live there.
 - c. It buys corn and soybeans to help farmers buy land.
4. What is Aden's marginal farmland used for today?
 - a. It is used for farming only during dry years.
 - b. It is returned to a natural state for wildlife to live on.
 - c. Aden collects bird eggs from the farm to sell in markets.

 **B** | Watch the video again. Complete the sentences with no more than three words from the video.

1. Aden said that he was a third _____ on this land.
2. For many years, Aden watched helplessly as _____ flooded its banks and soaked his crops.
3. Aden said that it takes _____ to pay for the lost crop.
4. Aden's friend planted prairie grass that will soon provide _____.
5. Aden calls the sound of birds singing "_____."
6. Aden couldn't be _____ for the way the project has turned out.

After Viewing

 **Critical Thinking.** Form a group with two or three other students. Discuss the questions.

1. The government program *Reinvest in Minnesota* pays farmers such as Dale Aden for their farmland. Do you think this program is a good idea? Why, or why not?
2. In this video, Dale Aden returned his land to a natural state. What are some possible positive and negative effects that this could have? Brainstorm these effects with your group.



Birds returned to the farmland once the land had been converted into a wildlife area.

A | Using a Dictionary. Check (✓) the words you already know. These are words you will hear and use in Lesson B. Then write each word from the box next to its definition. Use your dictionary to help you.

<input type="checkbox"/> enable	<input type="checkbox"/> found	<input type="checkbox"/> highlight	<input type="checkbox"/> perspective	<input type="checkbox"/> regain
<input type="checkbox"/> federal	<input type="checkbox"/> grant	<input type="checkbox"/> objective	<input type="checkbox"/> portion	<input type="checkbox"/> undertake

- _____ (v.) to give
- _____ (v.) to establish or start
- _____ (v.) to make possible
- _____ (n.) a goal you are trying to achieve
- _____ (n.) a way of thinking that is usually influenced by your own experiences
- _____ (v.) to get something back that you had lost
- _____ (v.) to emphasize or focus attention on
- _____ (adj.) related to the central government of a country
- _____ (n.) a part
- _____ (v.) to start doing a task and accept responsibility for it



B | Read the interview and fill in each blank with the correct word from exercise A. Then listen and check your answers.

Saving the World's Languages

A: What's happening to the world's languages?

B: Well, most people don't know that a language dies every 14 days. When a language dies, no one can speak the language anymore. National Geographic helped (1) _____ a project to save the world's most unique languages.

A: How many languages are dying?

B: Scientists think that over half of the languages spoken today may no longer exist in 2100. In Chile, for example, the Huilliche language may die soon. Only a small (2) _____ of people can speak the language, and most of the speakers are over 70 years old.

A: Why does a language disappear?

B: There are many reasons. Governments sometimes create (3) _____ policies that tell citizens to speak only one language. Also, people may forget a language if they don't speak it often.

A: What made you (4) _____ the task of trying to save these languages?

B: Language is key to understanding how speakers think and communicate. Our (5) _____ is to help people keep their cultures alive. From my (6) _____ as a scientist, I think our work is very important.

A: What do you do to help groups (7) _____ dying languages?

B: We (8) _____ people to study their language by giving them recording devices. We make dictionaries, and we (9) _____ how people can teach their language to others. In the future, we can (10) _____ access to the recordings, so people can learn the language and keep it alive.



A Huilliche man plays a musical instrument he built.

USING VOCABULARY

A | Complete the paragraph with the correct form of a word from the box.

enable federal found grant portion regain undertake

For many years, Native Americans in the United States have lived on reservations. Reservations are areas of land that were (1) _____ to the Native Americans by the (2) _____ government of the United States. The first reservations were (3) _____ as early as 1786. In its early history, the United States fought with many Native American groups, or tribes, and took away much of their land. Putting people on reservations (4) _____ the government to control the Native American groups more easily. On these reservations, Native Americans have often lived in poor economic conditions. In recent years, however, the situation has improved, and there are many successful Native American businesses on these reservations. Some Native American groups give a (5) _____ of the profits from the businesses to everyone in their group. The money has allowed them to (6) _____ projects to improve their reservations. Some groups are using their money to buy back some of their original lands. Government records show that Native Americans have (7) _____ nearly a million acres of land in this way.




Native American groups wear traditional clothing at a celebration.

B | **Choosing the Right Definition.** Study the numbered definitions for **objective**. Write the number of the definition next to the correct sentence below.


objective /əbdʒektɪv/ (**objectives**) [1] N-COUNT Your **objective** is what you are trying to achieve. • *Their objective was to preserve Native American traditions.* [2] ADJ **Objective** information is based on facts. • *A scientist is concerned with objective facts, not opinions.* [3] ADJ If a person is **objective**, they base their opinions on facts rather than on their personal feelings. • *He loves his children so much that he can't be objective when he talks about them.*

- _____ a. Try not to take sides in the argument and maybe you can remain objective.
- _____ b. His objective was to learn as many Native American languages as possible.
- _____ c. It's an objective truth that humans lived in Yellowstone 11,000 years ago.

 **C** | **Discussion.** Form a group with two or three other students. Read the statements. Do you agree or disagree with each statement? Share your opinions with your group.

1. Schools should **highlight** the role of the U.S. government in taking away Native American lands.
2. From my **perspective**, Native Americans should not live separated on reservations. Instead, they should live with the general American population.

Before Listening

 **Prior Knowledge.** With a partner, look at the map and answer the questions.

1. Read the names of the Native American groups. Have you heard of any of these Native American groups on the map? If so, what do you know about them?
2. What are some other Native American groups that you have heard about?



Listening: A Study Group Discussion



A | Listening for Main Ideas. Listen to a group of classmates reviewing for an exam. Then choose the correct answers.

1. What is the main topic of the conversation?
 - a. The poor condition of Native American reservation land
 - b. How Native Americans are restoring their lands to their original condition
 - c. Conflicts over land ownership between Native Americans and European Americans
2. Originally, what was the attitude of the United States government toward Native American culture and traditions?
 - a. The government wanted to change them.
 - b. The government was sorry for damaging them.
 - c. The government supported them.
3. According to the conversation, what is an important source of revenue for the Native Americans?
 - a. Donations from people who support their cause
 - b. Money provided by the United States government
 - c. Revenue from businesses on their reservations

Critical Thinking Focus: Evaluating Numbers and Statistics

When you hear a speaker say a number or statistic, try to evaluate the number by asking yourself questions. For example:

Is this a large or a small number?

Is it larger or smaller than I expected?

What percentage of the total is it?

Does this number seem accurate?



B | **Note-Taking.** Listen again and complete the notes.

Background

> 300 Native American _____ in the U.S.

U.S. forced them to adopt _____

Most reservations located _____ of Miss.

Land not suitable for _____

1970: U.S. granted right to run various _____

Used money to _____

InterTribal Sinkyone Wilderness Area

Founded on the _____, north of San Francisco

Access very _____

Gather food, have religious _____ here

Big Cypress Swamp

Owned by the Seminole group in _____

Bringing back _____ that used to live there

Removing _____ that weren't there originally

The InterTribal Sinkyone Wilderness Area



After Listening



Discussion. With a partner, discuss the questions.

1. Describe the Native American relationship with nature. Does your culture have any traditions or beliefs related to nature? Explain.
2. The Native Americans are removing animals from the Big Cypress Swamp that were not there originally. How did these animals get into the swamp? Share your ideas with your partner.

Pronunciation



Linking Consonants to Vowels

When a word ends in a consonant sound and the next word begins with a vowel sound, the two words are linked so that they sound like one word. Linking can occur in strings of two or more words.

turn off

deer and other animals



A | Listen to the six words and linked phrases. Then listen again and repeat.



B | Practice saying the sentences with a partner. Mark the linked words as in the example. Then listen and check your pronunciation.



1. Click on the file to open it.
2. You should speak out again.
3. He doesn't have an opinion.
4. The car dealer made an offer.
5. This car is new and improved.
6. Land conservation isn't easy.

Language Function

Expressing a Lack of Knowledge

In conversation, you often hear things that you didn't know about before. You can use the following expressions to explain that a certain fact is new to you.

I had no idea (that) . . .

I never knew (that) . . .

I didn't realize (that) . . .

I wasn't aware (that) . . .



track 2-30

A | In the study group discussion, the speakers expressed a lack of knowledge. Listen to the sentences and fill in the expressions.

1. **Amina:** _____ there are more than 300 Native American reservations in the United States, did you?

Jose: No, I definitely didn't. And _____ the reservations only make up two percent of the total land area of the United States.

2. **Lauren:** For a long time the people who lived there lived in bad economic conditions.

Jose: _____. So, when did things begin to get better?



B | Read the beginnings of these newspaper articles. Use the expressions from the Language Function box to tell a partner about the information that is new to you. Discuss other things you know or would like to know about each topic.



Olmec Stone Carvings Discovered

A giant stone carving of three cats was recently discovered in Mexico. The carvings are believed to be the work of the Olmec people. The Olmec people lived in Mexico and Central America between 1200 and 400 BC.



New Theories about Machu Picchu

Machu Picchu is a unique place high in the mountains of Peru. It has ruins¹ of structures built by the Inca people. It is one of the most popular tourist destinations in the world. There are various theories about Machu Picchu's purpose, but nobody knows for sure why it was built. Some theories say it was a religious place, but some scientists now believe that it was the home of the Incan king.

¹**Ruins** of a building are parts that remain after the building has fallen down.

I had no idea that the Olmec people carved cats in stone.

Neither did I. I wonder what else they carved.

Grammar

Verb + Object + Infinitive

Some verbs can be followed by an object and an *infinitive*. An *infinitive* consists of *to* + verb.

*Their prosperity **is allowing them to save** a part of the Big Cypress Swamp.*

The verbs in this list are usually followed by an infinitive. Some of them are followed by an object and an infinitive.


<i>advise</i>	<i>ask</i>	<i>forbid</i>	<i>invite</i>	<i>permit</i>	<i>remind</i>	<i>warn</i>
<i>allow</i>	<i>encourage</i>	<i>force</i>	<i>order</i>	<i>persuade</i>	<i>tell</i>	

*She **asked me to invite** her brother to the party.*


*I **will encourage him to open** his own business.*

To form the negative, insert *not* before the infinitive:

*The guide **reminded us not to enter** the reservation without permission.*

-  **A | Collaboration.** With a partner, write four statements using the verb + object + infinitive pattern. Use the verbs from the list in the box above.

1. Victor persuaded his friend to move to the city.
2. _____
3. _____
4. _____
5. _____

-  **B | Self-Reflection.** Work with your partner. Talk about people or events that have influenced your life. Use the verbs from the grammar box and the verb + object + infinitive pattern while speaking.

My parents always encouraged me to go to college.

That's great. Did you follow their advice?

Presentation Skills: Varying your Voice Volume

Volume means the loudness or softness of your voice. When speaking to a partner or a small group, you can use your regular, everyday volume level. However, for larger groups and class presentations, your everyday voice can sound too quiet. For presentations, you will need to increase your volume. You can also introduce excitement into your voice by varying the volume. Emphasize some words by saying them more loudly than others. Create drama by lowering your voice as well. Varying your volume will help keep your audience interested during conversations and presentations.

You may have to do research on the Internet for class or work. However, information found on the Internet isn't always reliable. Anyone can create a Web site, and while some Web sites are created by experts, most are not. When you want to use information from a Web site in a presentation or paper, it is necessary to evaluate the Web site. Web sites should contain accurate and objective information and be free of *bias*. Bias is an unfair opinion about a group or idea.


- A** | Do an Internet search about a popular tradition in a country of your choice. Select a Web site from the search results. Evaluate the Web site and complete the form below.


Web Site Evaluation Form

Search Topic: _____ Name of Site: _____

Web Address: _____

1. Who is the author of the Web site?
 - ☐ Author unknown
 - ☐ Author's name _____
 - ☐ Author's qualifications (if available) _____
2. Is there contact information for the author or the Web site owner on the site?
 - ☐ Yes ☐ No
3. What is the suffix on the Web site address?
 - ☐ .gov ☐ .com ☐ .edu ☐ Other: _____
4. What is the general purpose of the Web site?
 - ☐ scholarly ☐ educational ☐ entertainment
 - ☐ to give an opinion ☐ to sell something
5. When was information posted or last updated? _____
6. How does the site look?
 - ☐ well-maintained ☐ out-of-date
7. Is the site easy to use?
 - ☐ Yes ☐ No
8. Does the Web site include advertisements?
 - ☐ Yes ☐ No ☐ If yes, what kind? _____

-  **B** | Imagine that you had to write a paper about the topic you selected. With a partner, discuss your Web site. Decide if each Web site is an appropriate and reliable source to use in your paper. Explain what makes your Web site a good source or a poor source.

-  **C** | With your partner, join another pair of students. Each group member will present his or her Web site to the group. Use your form to explain your Web site. As a group, rank the Web sites from the most reliable to the least reliable.

Independent Student Handbook

Overview

The *Independent Student Handbook* is a resource that you can use at different points and in different ways during this course. You may want to read the entire handbook at the beginning of the class as an introduction to the skills and strategies you will develop and practice throughout the book. Reading it at the beginning will provide you with another organizational framework for understanding the material.

Use the *Independent Student Handbook* throughout the course in the following ways:

Additional instruction: You can use the *Independent Student Handbook* to provide more instruction on a particular skill that you are practicing in the units. In addition to putting all the skills instruction in one place, the *Independent Student Handbook* includes additional suggestions and strategies. For example, if you find you're having difficulty following academic lectures, you can refer to the Improving Your Listening Skills section to review signal phrases that help you to understand the speaker's flow of ideas.

Independent work: You can use the *Independent Student Handbook* to help you when you are working on your own. For example, if you want to improve your vocabulary, you can follow some of the suggestions in the Building Your Vocabulary section.

Source of specific tools: A third way to use the handbook is as a source of specific tools such as outlines, graphic organizers, and checklists. For example, if you are preparing a presentation, you might want to use the Research Checklist as you research your topic. Then you might want to complete the Presentation Outline to organize your information. Finally, you might want to use the Presentation Checklist to help you prepare for your presentation.

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Formal Listening Skills

Predicting

Speakers giving formal talks or lectures usually begin by introducing themselves and then introducing their topic. Listen carefully to the introduction of the topic and try to anticipate what you will hear.

Strategies:

- Use visual information including titles on the board, on slides, or in a PowerPoint presentation.
- Think about what you already know about the topic.
- Ask yourself questions that you think the speaker might answer.
- Listen for specific phrases.

Identifying the Topic:

Let's look at . . .

Today's topic is . . .

What I want to do today is . . .

Today, we're going to cover . . .

Understanding the Structure of the Presentation

An organized speaker will use certain expressions to alert you to the important information that will follow. Notice the signal words and phrases that tell you how the presentation is organized and the relationship between the main ideas.

Introduction

A good introduction includes a thesis statement, which identifies the topic and gives an idea of how the lecture or presentation will be organized.

Introduction (Topic + Organization):

I'd like to focus on . . .

There are basically two groups . . .

Several factors contribute to this . . .

To begin with . . .

There are three reasons . . .

There are five steps in this process . . .

Body

In the body of the lecture, the speaker will usually expand upon the topic presented in the introduction. The speaker will use phrases that tell you the order of events or subtopics and their relationship to each other. For example, the speaker may discuss several examples or reasons.

Following the Flow of Ideas in the Body:

However, . . .

For example, . . .

The first/next/final (point) is . . .

As a result, . . .

Let's move on to . . .

Another reason is . . .

Conclusion

In a conclusion, the speaker often summarizes what has already been said and may discuss implications or suggest future developments. For example, if a speaker is talking about an environmental problem, he or she may end by suggesting what might happen if we don't solve the problem, or he or she might add his or her own opinion. Sometimes speakers ask a question in the conclusion to get the audience to think more about the topic.

Restating/Concluding:

In summary, . . .

As you can see, . . .

To sum up, . . .

In conclusion, . . .

Listening for Main Ideas

It's important to distinguish between a speaker's main ideas and the supporting details. In school, a professor often will test a student's understanding of the main points more than of specific details. Often a speaker has one main idea just like a writer does, and several main points that support the main idea.

Strategies:

- Listen for a thesis statement at the end of the introduction.
- Listen for rhetorical questions, or questions that the speaker asks, and then answers. Often the answer is the thesis.
- Notice ideas that are repeated or rephrased.

Repetition/Rephrasing:

I'll say this again . . .

Let me put it another way . . .

What you need to know is . . .

So again, let me repeat . . .

The most important thing to know is . . .

Listening for Details (Examples)

A speaker will often provide examples that support a main point. A good example can help you understand and remember the main point.

Strategies:

- Listen for specific phrases that introduce an example.
- Notice if an example comes after a generalization the speaker has given, or is leading into a generalization.
- If there are several examples, decide if they all support the same idea or are different aspects of the idea.

Giving Examples:

. . . such as . . .

The first example is . . .

Here's an example of what I mean . . .

. . . including . . .

For instance, . . .

Let me give you an example . . .

Listening for Details (Reasons)

Speakers often give reasons, or list causes and/or effects to support their ideas.

Strategies:

- Notice nouns that might signal causes/reasons (e.g., *factors, influences, causes, reasons*), or effects (e.g., *effects, results, outcomes, consequences*).
- Notice verbs that might signal causes/reasons (e.g., *contribute to, affect, influence, determine, produce, result in*) or effects (often these are passive, e.g., *is affected by*).
- Listen for specific phrases that introduce reasons/causes.

Giving Reasons:

This is because . . .

The first reason is . . .

This is due to . . .

In the first place . . .

Giving Effects or Results:

As a result, . . .

Consequently, . . .

Another effect is . . .

Therefore, . . .

One consequence is . . .

Understanding Meaning from Context

Speakers may use words that are unfamiliar to you, or you may not understand exactly what they've said. In these situations, you can guess the meaning of a particular word or fill in the gaps of what you've understood by using the context or situation itself.

Strategies:

- Don't panic. You don't always understand every word of what a speaker says in your first language either.
- Use context clues to fill in the blanks. What did you understand just before or just after the missing part? What did the speaker probably say?
- Listen for words and phrases that signal a definition or explanation.

Giving Definitions:

Or . . .

. . . meaning that . . .

(By which) I mean . . .

In other words, . . .

That is (to say), . . .

To put it another way . . .

Recognizing a Speaker's Bias

Speakers often have an opinion about the topic they are discussing. It's important for you to understand if they are objective or subjective about the topic. Being subjective means having a bias or a strong feeling about something. Objective speakers do not express an opinion.

Strategies:

- Notice words such as adjectives, adverbs, and modals that the speaker uses (e.g., *ideal*, *horribly*, *should*, *shouldn't*).
- Listen to the speaker's voice. Does he or she sound excited, happy, or bored?
- When presenting another point of view on the topic, is that given much less time and attention by the speaker?
- Listen for words that signal opinions.

Opinions:

If you ask me, . . .

(Personally,) I think . . .

In my opinion, . . .

As far as I'm concerned . . .

Making Inferences

Sometimes a speaker doesn't state something directly, but instead implies it. When you draw a conclusion about something that is not directly stated, you make an inference. For example, if the speaker says he or she grew up in Spain, you might infer that he or she speaks Spanish. When you make inferences, you may be very sure about your conclusions or you may be less sure. It's important to use information the speaker states directly to support your inferences.

Strategies:

- Note information that provides support for your inference. For example, you might note that the speaker lived in Spain.
- Note information that contradicts your inference. Which evidence is stronger—for or against your inference?
- If you're less than certain about your inference, use words to soften your language such as modals, adverbs, and quantifiers.

*She probably speaks Spanish, and she **may** also prefer Spanish food. **Many** people from Spain are familiar with bullfighting.*

IMPROVING YOUR NOTE-TAKING SKILLS

Summarizing or Condensing

When taking notes, you should write down only the most important ideas of the lecture. To take good notes quickly:

- Write only the key words.

dusky seaside sparrow extinct

- You don't need complete sentences.

That's why the Endangered Species Act, which was passed in the United States in 1973, protects both endangered animals and their habitats

- Use abbreviations (short forms) and symbols when possible.

info information *dr* doctor *w/* with *<* less than

ex. examples *b/c* because *= /→* leads to causes *>* more than

Outlining

Another way to take clear and organized notes is to use an outline. Like with other types of note-taking, in an outline you should only write key ideas and you should use abbreviations and symbols when possible. To indicate main ideas in an outline, use Roman numerals (I, II, III) and capital letters (A, B, C). Indicate details with numbers. As information becomes more specific, move it to the right.

- I. Background
 - A. 1970s & 1980s: Soviet Union developed nuclear technology
 - B. 1986: 25 plants w/ safety probs.
- II. Chernobyl disaster
 - A. Causes
 - 1. Mistakes during safety test
 - 2. No containment building to limit fire and radiation
 - B. Result: explosion → people dead

Recognizing Organization

When you listen to a speaker, you practice the skill of noticing that speaker's organization. As you get in the habit of recognizing the organizational structure, you can use it to structure your notes in a similar way. Review the signal words and phrases from the Improving Your Listening Skills section in this handbook.

Some basic organizational structures are:

- Narrative (often used in history or literature)
- Process (almost any field, but especially in the sciences)
- Cause and Effect (history, psychology, sociology)
- Classification (any field, including art, music, literature, sciences, history)
- Problem and Solution

Using Graphic Organizers

Graphic organizers can be very useful tools if you want to rewrite your notes. Once you've identified the speaker's organizational structure, you can choose the best graphic organizer to show the ideas. See the Resources section on page 214 in this handbook for more information.

Distinguishing between Relevant and Irrelevant Information

Remember that not everything a speaker says is noteworthy. A lecturer or presenter will usually signal important information you should take notes on.

Signals for Important Information:

Don't forget that . . .

Let me stress that . . .

It is important to note/remember that . . .

You need to remember that . . .

Instructors and other lecturers may also signal when to stop taking notes.

Signals to Stop Taking Notes:

You can find this in your handout . . .

This won't be on your test . . .

You don't have to write all this down . . .

This information is in your book . . .

In a similar way, they may let you know when they are going to discuss something off-topic.

Understanding Sidetracks:

That reminds me . . .

Incidentally . . .

On a different topic . . .

As an aside . . .

This is off the subject, but . . .

By the way, . . .

Recognizing a Return to a Previous Topic

When a speaker makes a sidetrack and talks about something that is not directly related to the main topic, he or she will often signal a return to a previous topic.

Returning to a Previous Topic:

Back to . . .

To continue . . .

So, just to restate . . .

OK, so to get back on topic . . .

Getting back to what we were saying . . .

To return to what we were talking about earlier . . .

Using Notes Effectively

It's important to not only take good notes, but also to use them in the most effective way.

Strategies:

- Go over your notes after class to review and add information you might have forgotten to write down.
- Compare notes with a classmate or study group to make sure you have all the important information.
- Review your notes before the next class, so you will understand and remember the information better.

Independent Vocabulary Learning Tips

Keep a vocabulary journal.

- If a new word is useful, write it in a special notebook. Also write a short definition (in English if possible) and the sentence or situation where you found the word (its context). Write your own sentence that uses the word.
- Carry your vocabulary notebook with you at all times. Review the words whenever you have free time.
- Choose vocabulary words that will be useful to you. Some words are rarely used.

Experiment with new vocabulary.

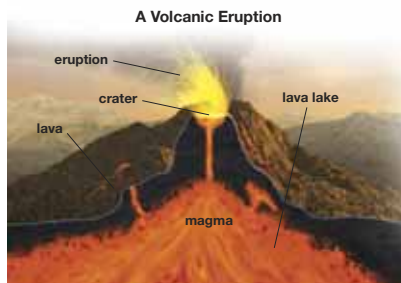
- Think about new vocabulary in different ways. For example, look at all the words in your vocabulary journal and make a list of only the verbs. Or, list the words according to the number of syllables (one-syllable words, two-syllable words, and so on).
- Use new vocabulary to write a poem, a story, or an email message to a friend.
- Use an online dictionary to listen to the sound of new words. If possible, make a list of words that rhyme. Brainstorm words that relate to a single topic that begin with the same sound (*student, study, school, skills, strategies, studious*).

Use new words as often as possible.

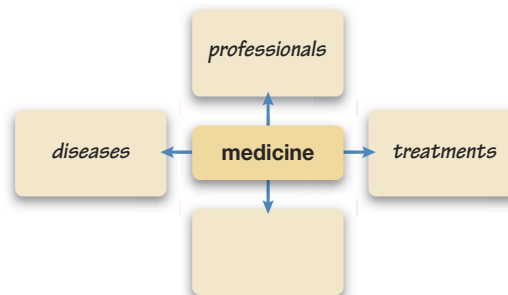
- You will not know a new vocabulary word after hearing or reading it once. You need to remember the word several times before it enters your long-term memory.
- The way you use an English word—in which situations and with what other words—might be different from a similar word in your first language. If you use your new vocabulary often, you're more likely to discover the correct way to use it.

Use vocabulary organizers.

- Label pictures.



- Make word maps.



- Make personal flashcards. Write the words you want to learn on one side. Write the definition and/or an example sentence on the other.

Prefixes and Suffixes

Use prefixes and suffixes to guess the meaning of unfamiliar words and to expand your vocabulary. Prefixes usually change the meaning of a word somewhat. Suffixes usually change the part of speech. If you train yourself to look for the base meaning, or the meaning of the stem of the word, you can understand more vocabulary.

Prefix	Meaning	Example
<i>a-</i>	completely; not	awake; apolitical
<i>bi-</i>	two	bilingual, bicycle
<i>dis-</i>	not, negation, removal	disappear, disadvantages
<i>pre-</i>	before	prehistoric, preheat
<i>mis-</i>	bad, badly, incorrectly	misunderstand, misjudge
<i>re-</i>	again	remove
<i>un-</i>	not, the opposite of	unhappy, unusual, unbelievable

The following are derivational suffixes that change the part of speech of the base word.

Suffix	New Part of Speech	Example
<i>-able</i>	adjective	believable
<i>-ary</i>	noun	summary
<i>-ent</i>	adjective	convergent, divergent
<i>-ful</i>	adjective	beautiful, successful
<i>-ed</i>	adjective	stressed, interested
<i>-ize</i>	verb	summarize
<i>-ly</i>	adverb	carefully, completely
<i>-ment</i>	noun	assignment
<i>-tion</i>	noun	information

Dictionary Skills

The dictionary listing for a word usually provides the pronunciation, part of speech, other word forms, synonyms, examples of sentences that show the word in context, and common collocations.

Synonyms

A *synonym* is a word that means the same thing (e.g., *baby*=*infant*). Use synonyms to expand your vocabulary.

Word Families

These are the words that have the same stem or base word, but have different prefixes or suffixes.

Different Meanings of the Same Word

Many words have several meanings and several parts of speech. The example sentences in the word's dictionary entry can help you determine which meaning you need. For example, the word *plant* can be a noun or a verb.

Collocations

Dictionary entries often provide *collocations*, or words that are often used with the target word. For example, if you look up the word *get*, you might see *get around*, *get into*, *get there*, and so on.

Everyday Communication

Summary of Useful Phrases for Everyday Communication

It's important to practice speaking English every day, with your teacher, your classmates, and anyone else you can find to practice with. This chart lists common phrases you can use in everyday communication situations. The phrases are listed in this chart from more formal to less formal.

Asking for Clarification: <i>Could you explain . . . (for me, please)?</i> <i>What do you mean by . . . ?</i> <i>What (exactly) is . . . ?</i> <i>(Sorry,) what does . . . mean?</i>	Digressing from the Topic: <i>Speaking of . . .</i> <i>That reminds me, . . .</i> <i>Incidentally . . .</i> <i>By the way . . .</i>
Agreeing: <i>I agree.</i> <i>I think so too.</i> <i>I think you're right.</i> <i>Exactly!</i> <i>You can say that again!</i>	Expressing Hopes: <i>It would be nice/great/wonderful/ideal if . . .</i> <i>I'm hoping (that) . . .</i> <i>I (really) hope (that) . . .</i>
Disagreeing: <i>I disagree.</i> <i>I'm not so sure (about that) . . .</i> <i>That's debatable.</i> <i>I don't think so.</i> <i>That's crazy!</i> <i>No way!</i>	Apologizing for Interrupting: <i>I'm sorry. I didn't mean to cut you off.</i> <i>What were you going to say?</i> <i>Go ahead.</i> <i>Sorry.</i>
Conceding a Point: <i>Good point.</i> <i>Fair enough.</i> <i>I'll give you that.</i>	Asking Sensitive Questions: <i>Excuse me for asking, but . . . ?</i> <i>Do you mind if I ask you . . . ?</i> <i>If you don't mind my asking, . . . ?</i>
Expressing Surprise: <i>That's amazing/astonishing/incredible.</i> <i>That's (really) surprising.</i> <i>Wow!</i> <i>No kidding.</i> <i>Imagine that!</i>	Congratulating the Group: <i>Nice job, everybody!</i> <i>Congratulations!</i> <i>We make a great team!</i> <i>Great going, gang!</i> <i>Good for you!</i> <i>Way to go, guys!</i>
Expressing Encouragement: <i>Good luck!</i> <i>Go for it!</i> <i>Go get 'em!</i>	Expressing Interest: <i>Is that so?</i> <i>How interesting!</i> <i>I didn't know that.</i>

Expressing Approval and Disapproval: <i>(I) think it's fine to . . .</i> <i>It's OK that . . .</i> <i>It's not right for (someone) to . . .</i> <i>It's wrong to . . .</i>	Joining a Group: <i>Do you mind if I join your group?</i> <i>Do you want to work together?</i> <i>Do you need another person?</i>
Enumerating: <i>First, . . . Second, . . . Third, . . .</i> <i>First . . . , then . . . , and then . . .</i> <i>For one thing, . . . For another, . . .</i> <i>And for another, . . .</i>	Checking Background Knowledge: <i>Do you know about . . . ?</i> <i>Have you (ever) heard of . . . ?</i> <i>What do you know about . . . ?</i> <i>What can you tell me about . . . ?</i>

Doing Group Projects

You will often have to work with a group on activities and projects. It can be helpful to assign group members certain roles. You should try to switch roles every time you do a new activity. Here is a description of some common roles used in group activities and projects:

Group Leader—Makes sure the assignment is done correctly and all group members participate. Asks questions: *What do you think? Does anyone have another idea?*

Secretary—Takes notes on the group's ideas (including a plan for sharing the work).

Manager—During the planning and practice phases, the manager makes sure the presentation can be given within the time limit. If possible, practice the presentation from beginning to end and time it.

Expert—Understands the topic well; invites and answers audience questions after the presentation. Make a list of possible questions ahead of time to be prepared.

Coach—Reminds group members to perform their assigned roles in the group work.

Note that group members have one of these roles in addition to their contribution to the presentation content and delivery.

Classroom Presentation Skills

Library Research

If you can go to a public library or school library, start there. You don't have to read whole books. Parts of books, magazines, newspapers, and even videos are all possible sources of information. A librarian can help you find both print and online sources of information.

Online Research

The Internet is a source with a lot of information, but it has to be looked at carefully. Many Web sites are commercial and may have incomplete, inaccurate, or biased information.

Finding reliable sources

Strategies:

- Your sources of information need to be reliable. Think about the author and the publisher. Ask yourself: *What is their point of view? Can I trust this information?*
- Your sources need to be well respected. For example, an article from *The Lancet* (a journal of medical news) will probably be more respected than an article from a popular magazine.
- Start with Web sites with .edu or .org endings. These are usually educational or non-commercial Web sites. Some .com Web sites also have good information, for example www.nationalgeographic.com or www.britannica.com.

Finding information that is appropriate for your topic

Strategies:

- Look for up-to-date information, especially in fields that change often such as technology or business. For Internet sources, look for recent updates to the Web sites.
- Most of the time, you'll need to find more than one source of information. Find sources that are long enough to contain some good information, but not so long that you won't have time to read them.
- Think about the source's audience. For example, imagine that you are buying a new computer and want to read about the different types of computers before you buy one. If the source is written for computer programmers, for example, you might not be able to understand it. If the source is written for university students who need to buy a new computer, it's more likely to be understandable.

Speaking Clearly and Comprehensibly

It's important that your audience understands what you are saying for your presentation to be effective.

Strategies:

- Practice your presentation many times for at least one other person and ask him or her for feedback.
- Make sure you know the correct pronunciation of every word—especially the ones you will say more than once. Look them up online or ask your instructor for the correct pronunciation.
- Try to use thought groups. Keep these words together: long subjects, verbs and objects, clauses, prepositional phrases. Remember to pause slightly at all punctuation and between thought groups.
- Speak loudly enough so that everyone can hear.
- Stop occasionally to ask your audience if they can hear you and follow what you are saying.

Demonstrating Knowledge of Content

You should know more about your subject than you actually say in your presentation. Your audience may have questions or you may need to explain something in more detail than you planned.

Knowing a lot about your subject will allow you to present well and feel more confident.

Strategies:

- Practice your presentation several times.
- Don't read your notes.
- Say more than is on your visuals.
- Tell your audience what the visuals mean.

Phrases to Talk about Visuals:

You can see . . .

The main point is that . . .

The line/box represents . . .

This graph/diagram shows/explains . . .

Engaging the Audience

Presenting is an important skill. If your audience isn't interested in what you have to say, then your message is lost.

Strategies:

- Introduce yourself.
- Make eye contact. Look around at different people in the audience.
- Use good posture. *Posture* means how you hold your body. When you speak in front of the class, you should stand up straight. Hold your hands together in front of your waist, if you aren't holding notes. This shows that you are confident and well prepared.
- Pause to check understanding. When you present ideas, it's important to find out if your audience understands you. Look at the faces of people in the audience. Do they look confused? Use the expressions from the chart below to check understanding.

Phrases to Check for Understanding:

OK so far?

Are you with me?

Have you got that?

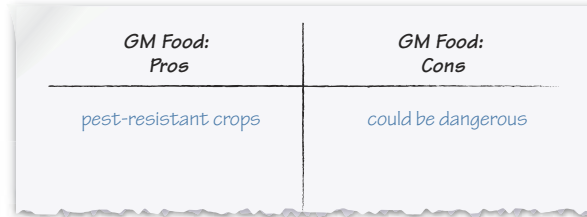
Does that make sense?

Do you have any questions?

Understanding and Using Visuals: Graphic Organizers

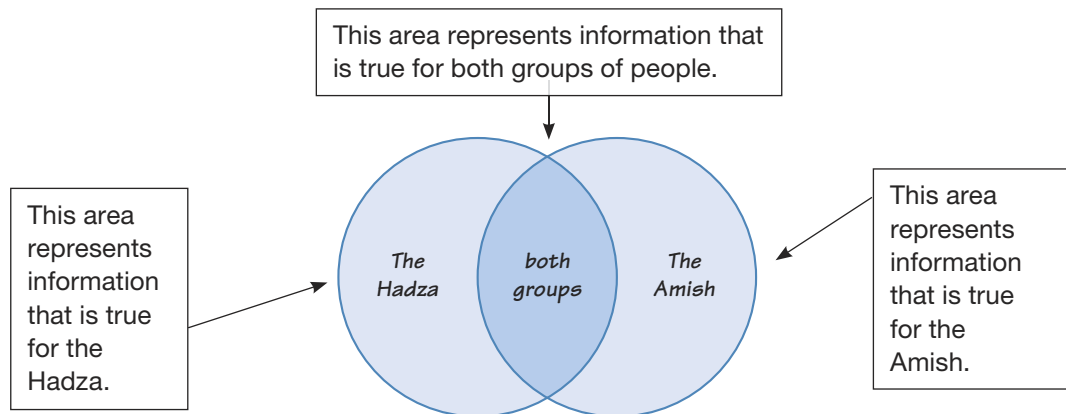
T-Chart

Purpose: Compare or contrast two things or list aspects of two things



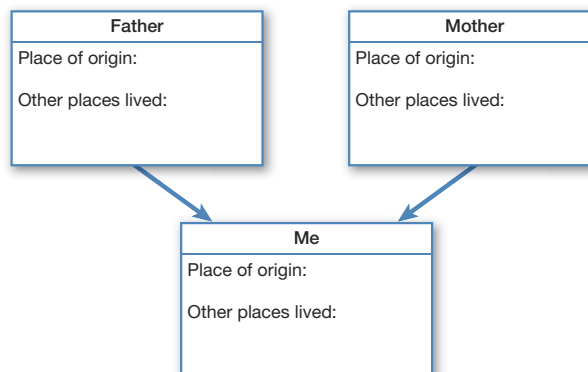
Venn Diagram

Purpose: Show differences and similarities between two things, sometimes three



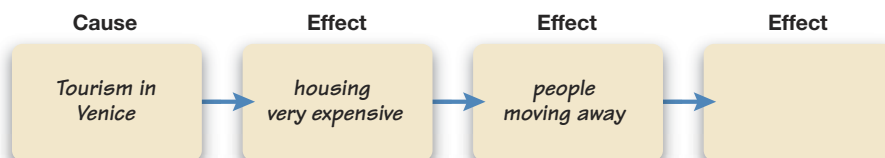
Family Tree

Purpose: Organize information about your family relationships



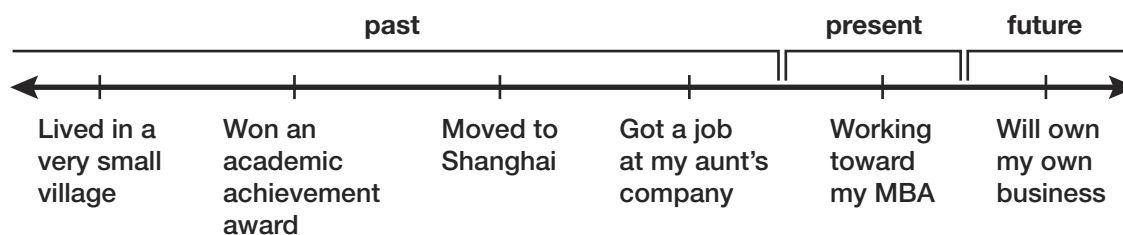
Flow Chart

Purpose: Show the stages in a process, or a cause-and-effect chain (Flow charts have many different shapes.)



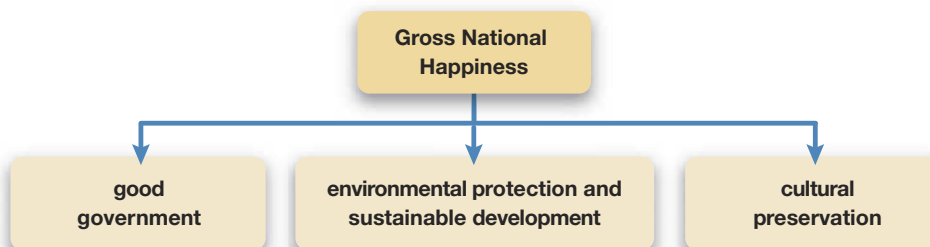
Time Line

Purpose: Show the order of events and when they happened in time



Idea Map

Purpose: Brainstorm ideas or identify main points or themes of a listening or reading. (A Spider Map can also be used for this purpose.)



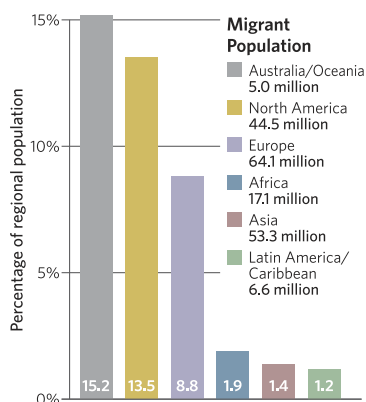
Understanding and Using Visuals: Maps, Charts, Graphs, and Diagrams

Maps are used to show geographical information.



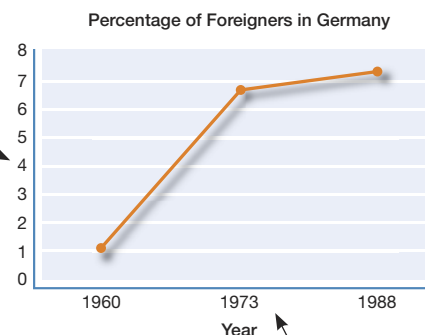
Bar and line graphs use axes to show the relationship between two or more things.

Bar graphs compare amounts and numbers.



The **y axis** shows the percentage of foreign immigrants in Germany.

Line graphs show a change over time.



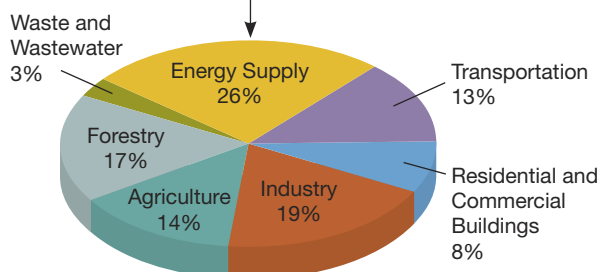
Source: www.migrationinformation.org

The **x axis** shows the year.

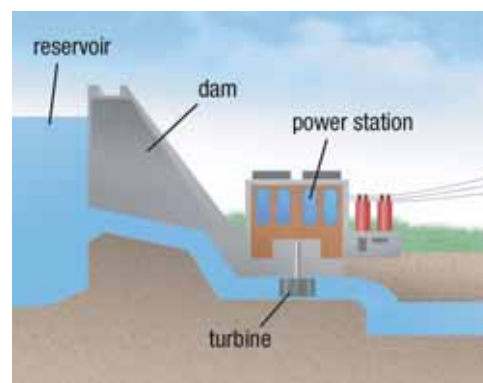
Pie charts show percents of a whole, or something that is made up of several parts.

Fossil Fuel Use by Sector

This section shows that the Energy Supply sector uses the most fossil fuels.



Diagrams are a helpful way to show how a process or system works.



Presentation Outline

When you are planning a presentation, you may find it helpful to use an outline. If it is a group presentation, the outline can provide an easy way to divide the content. For example, someone could do the introduction, another student the first main idea in the body, and so on.

I. Introduction

Topic: _____

Hook/attention getter: _____

Thesis statement: _____

II. Body

A. First step/example/reason: _____

Supporting details:

1. _____

2. _____

3. _____

B. Second step/example/reason: _____

Supporting details:

1. _____

2. _____

3. _____

C. Third step/example/reason: _____

Supporting details:

1. _____

2. _____

3. _____

III. Conclusion

Major points to summarize: _____

Any implications/suggestions/predictions: _____

Closing comment/summary: _____

Checklists

Research Checklist

- ☐ Do I have three to five sources for information in general—and especially for information I'm using without a specific citation?
- ☐ Am I correctly citing information when it comes from just one or two sources?
- ☐ Have I noted all sources properly, including page numbers?
- ☐ When I am not citing a source directly, am I using adequate paraphrasing? (a combination of synonyms, different word forms, and/or different grammatical structure)
- ☐ Are my sources reliable?

Presentation Checklist

- ☐ Have I practiced several times?
- ☐ Did I get feedback from a peer?
- ☐ Have I timed the presentation?
- ☐ Do I introduce myself?
- ☐ Do I maintain eye contact?
- ☐ Do I explain my visuals?
- ☐ Do I pause sometimes and check for understanding?
- ☐ Do I use correct pronunciation?
- ☐ Do I have good posture?
- ☐ Am I using appropriate voice volume so that everyone can hear?

Pair and Group Work Checklist

- ☐ Do I make eye contact with others?
- ☐ Do I pay attention when someone else is talking?
- ☐ Do I make encouraging comments?
- ☐ Do I ask for clarification when I don't understand something?
- ☐ Do I check for understanding?
- ☐ Do I clarify what I mean?
- ☐ Do I express agreement and disagreement politely?
- ☐ Do I make suggestions when helpful?
- ☐ Do I participate as much as my classmates?
- ☐ Do I ask my classmates for their ideas?

Summary of Signal Phrases

Giving Recommendations: <i>It's (probably) a good idea (not) to . . .</i> <i>It might be wise (not) to . . .</i> <i>If I were you, I wouldn't . . .</i> <i>Have you thought about . . .?</i>	Showing Understanding: <i>You must be (tired).</i> <i>You must have been (glad).</i> <i>That must be (fun).</i> <i>That must have been (difficult).</i>
Using Fillers: <i>Let me think</i> <i>Just a moment</i> <i>Oh, what's the word . . .</i> <i>. . . um . . .</i> <i>. . . hang on . . .</i>	Expressing Uncertainty: <i>It appears/looks/seems as though . . .</i> <i>It appears/seems to me (that) . . .</i> <i>I'm not quite/altogether sure (that) . . .</i> <i>I could be wrong, but it appears/doesn't appear (that) . . .</i>
Paraphrasing: <i>I mean . . .</i> <i>In other words . . .</i> <i>That is (to say) . . .</i> <i>Let me put it another way . . .</i> <i>To put it another way . . .</i>	Enumerating Reasons and Examples: <i>First, Second, Third . . .</i> <i>First, Next, After that . . .</i> <i>First, Then, And then . . .</i> <i>For one thing, For another, And for another . . .</i> <i>In the first place, In the second place, And in the third place . . .</i>
Expressing a Lack of Knowledge: <i>I had no idea (that) . . .</i> <i>I didn't realize (that) . . .</i> <i>I never knew (that) . . .</i> <i>I wasn't aware (that) . . .</i>	Giving Effects or Results: <i>As a result, . . .</i> <i>One consequence is . . .</i> <i>Consequently . . .</i> <i>Therefore, . . .</i> <i>Another effect is . . .</i>
Giving Definitions: <i>. . . which means . . .</i> <i>In other words, . . .</i> <i>What that means is . . .</i> <i>Another way to say that is . . .</i> <i>That is . . .</i>	Expressing Opinions: <i>As far as I'm concerned, . . .</i> <i>In my opinion, . . .</i> <i>(Personally,) I think . . .</i> <i>If you ask me, . . .</i> <i>As I see it, . . .</i>
Signal to Stop Taking Notes: <i>You don't have to write all this down . . .</i> <i>This information is in your book . . .</i> <i>You can find this in your handout . . .</i> <i>This won't be on your test . . .</i>	Returning to a Previous Topic: <i>So, just to restate . . .</i> <i>Back to . . .</i> <i>Getting back to what we were saying . . .</i> <i>To return to what we were talking about earlier . . .</i> <i>OK, so to get back on topic . . .</i>
Understanding Sidetracks: <i>That reminds me . . .</i> <i>By the way . . .</i> <i>This is off the subject, but . . .</i> <i>As an aside . . .</i> <i>On a different topic . . .</i>	Confirming Understanding: <i>Are you following me?</i> <i>Does that make sense?</i> <i>Have you got that?</i> <i>Any questions?</i> <i>Are you with me?</i> <i>OK so far?</i>

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*These words are on the Academic Word List (AWL). The AWL is a list of the 570 highest-frequency academic word families that regularly appear in academic texts. The AWL was compiled by researcher Averil Coxhead based on her analysis of a 3.5 million word corpus (Coxhead, 2000).

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